Industry Executives Foresee Good Business in 1932

(Concluded from Page 1, Column 4)

supplied and the very enthusiastic acceptance of household refrigeration, it seems reasonable to assume that a cumulative demand has developed which should insure good volume during 1932.

However, it seems equally reasonable to assume that the industry cannot continue indefinitely to show increased volume against a background of very general business depression, and we feel that the volume of refrigeration sales will respond to general business conditions during 1932 in greater degree than it has in 1930 and 1931.

If general business shows marked recovery—and many authorities anticipate it will during the first half of 1932—the sale of refrigerators in 1932 should exceed the number sold this year.

As the education of the public in the matter of automatic refrigeration develops, no doubt the demand for larger models will increase, and it is reasonable to expect that greater beauty and more novelty in design will be apparent as the result of natural evolution and striving for competitive advantage.

The commercial market is so greatly diversified that it is difficult to draw definite comparisons between that market and the household market. As retail food merchants become more conscious of the returns that can be made on an investment by installing up-to-date refrigeration, the market will expand—and a tremendous expansion will. of course, take place as the public is educated in the use of quick-frozen foods.

Manufacturers will, no doubt, seek to improve their distributing organizations in 1932, both by increased intensity of selling effort and by more extensive distribution.

The former will be indicated by such activities as closer cooperation with dealers and better education of retail salesmen; and the latter by sales through less intensive organizations such as department stores, hardware stores, furniture stores, electrical dealers and plumbing houses.

It seems that the chief problem involved in developing good distribution of electric refrigerators by established merchants is generated by the fact that electric refrigerators so far have been successfully sold only by salesmen who have had highly specialized training and who have used intensive methods of merchandising.

The type of merchants you mention are, generally speaking, not operating specialty selling organizations. We should not expect them to successfully sell cash registers, adding machines or life insurance or any other commodity that requires specialty selling.

It seems that such merchants will have to be persuaded to adopt accepted specialty selling methods if they are to be successful as distributors of electric refrigeration.

It has been the history of other industries that they usually swing beyond the limit of economic sanity in the matter of time payments and then settle back to time payment procedures which represent that which is economically sound.

In all likelihood, the refrigeration industry has gone about as far in the matter of time payments as economic sanity will permit. However, we may go a little further before we descend to earth.

Merchandising electric refrigerators by means of coin meter devices is still in the experimental stage. Data so far collected does not indicate anything more than a "hypodermic" advantage in this method of selling.

Selling by means of free trial in the home is another method that is still in the laboratory. Probably experiments of this nature will be extended before conclusive data can be had.

Long term warranties must, in the last analysis, mean higher installed prices than would be the case under short term warranties. The ultimate extension of the market depends upon *minimum* installed prices. Long term warranties are likely to lead to misunderstandings and the creation of ill-will as between users and dealers.

It is not apparent that long term warranties have served, during the past year, as a great sales stimulus. It appears to us that these statements are self-evident facts, and if this be so, the facts would seem to point to a gradual return to sanity in the matter of warranties.

In the specific refrigeration developments outlined, we believe there will be a healthy growth in each of these fields during 1932, depending largely upon the developments in general business.

Undoubtedly the industry will continue its efforts to bring about more uniform seasonal sales curve.

Electric refrigeration dealers and distributors frequently sell companion lines, but the type of companion line that he will be successful in merchandising seems to depend more upon the experience and ability of the individual distributor and dealer and upon local conditions than upon the specific item he sells.

ELECTRIC REFRIGERATION NEWS has justified its existence in 1931 by continuing to be the industry's newspaper in every sense of the word. During 1932 its service will doubtless be improved by the aggressive development of its announced policies.

LOUIS RUTHENBURG,
President and General Manager.

Zimmerman

Electric Refrigeration Department
General Electric Co.
Cleveland, Ohio.

Editor:

The year just past saw sales of General Electric refrigerator approximate 1930 sales, the best year in our history. Our 1930 sales were almost 30 per cent ahead of those for 1929.

We attribute this to three things: first, consistent and steady advertising; second, a greater appreciation of the value of the electric refrigerator; and, third, a wider employment of the installment plan of purchase.

We entered 1931 with the thought that advertising would be our greatest aid to sales, and results have justified that belief. For that reason we are planning on adopting the same program for 1932, with, perhaps, slight changes in our direct mail set-up.

As to installment selling, there is a direct relation between sales volume and the deferred plan of payment. This year we will continue to encourage the use of this plan.

Wider appreciation of the electric refrigerator, as a means of guarding both the family's health and pocketbook, has come from the testimony of users and from the cooperative advertising effort of the electric refrigeration bureau of the National Electric Light Association. The association's effort will continue this year.

We believe our 1932 sales will be as great, if not greater, than those for the past year.

P. B. ZIMMERMAN,
Manager.

Biechler

Frigidaire Corp.
Dayton, Ohio.

Editor:

Frigidaire's advertising and promotional program for 1932 will be directed toward surpassing 1931 when it built and shipped 35 per cent more household models than during the preceding year.

To attain this still larger volume we are increasing the number and type of our sales outlets and introducing new merchandising methods. Our line has been expanded to meet wider market requirements. We are now building small unit air conditioning plants suitable for either home or office use.

The economies and conveniences of electric refrigeration equipment constitute a popular and logical buying urge in both the household and commercial fields. Consequently our organization views the outlook with confidence, believing that the coming twelve months will witness a continuance of the encouraging and increasing demand for its products.

Every dealer and salesman in our organization is out to close his first 1932 order early in January. Our field inventories are the lowest at this time of the year they have been in several years on the same date. We are expecting that when Frigidaire's net results of 1932 are tabulated they will reflect a decided improvement over 1931.

E. G. BIECHLER,
President and General Manager.

Hunt

Trupar Mfg. Co.
Dayton, Ohio.

Editor:

Your letter of Dec. 22 setting forth the list of 12 questions, with reference to the refrigeration industry, is quite interesting and to the point.

While it is a difficult task to answer these questions without leaving the impression that one might be a Houdini, one cannot help but have some certain definite ideas about the industry as a whole.

It is our opinion that mechanical refrigeration has become an accepted necessity in the home and wherever refrigeration is necessary. This fact is attracting a considerable number of manufacturers who feel that the possibilities are unbounded, and some of these lack the necessary fundamentals which go to make it a sound and profitable undertaking.

There are on the other hand appearing a certain kind of buyers who are influenced entirely upon low price equipment. It almost always happens that the inexperienced manufacturer is meeting with the low price buyer and from this combination the industry as a whole has its greatest weakness.

It is my opinion that from this one thing alone the industry will be held back most on account of the building up of lack of confidence in the buying public.

H. J. HUNT,
President.

Allen

Westinghouse Electric & Mfg Co.
Mansfield, Ohio.

Editor:

With reference to your letter of the 22, I offer the following comments:

There appears to be every reason why the electric refrigeration industry should continue in 1932 the outstanding accomplishments of this year. The public will have a better appreciation of the many conveniences afforded by an electric refrigerator and will no longer consider it a luxury but a necessity.

That an electric refrigerator represents an economy should attract many people in these days when economy is so necessary to many. Electric refrigerators today are just about fool proof and represent as good value as one can find for the money.

Time payment plans used in the refrigeration industry extend payments over a couple of years, providing a means of buying an electric refrigerator which is within the reach of everyone and, at the same time, provide a stabilizing influence for the industry.

The distribution of Westinghouse refrigerators in 1932 will be more intensive and extensive than in 1931. Our distribution is now nation-wide.

C. E. ALLEN,
Commercial vice president.

Gennett

The Starr Company
Richmond, Ind.

Editor:

Referring to your letter of Dec. 22, in regard to future movements and possibilities in the refrigeration business:

It is our opinion that in 1932 more refrigerators and electrical refrigeration will be sold than in 1931. Under present business conditions, it is very difficult to estimate what the rate of increase will be or whether it will continue for five years.

The trend in equipment will be towards trying to attract the purchaser, by making specialties in all directions. Household refrigeration increase will likewise increase the commercial market. The two will move forward hand in hand.

Distribution in 1932 will be tied up with the general business depression more than at any time in the past. A great deal of unrest will exist, with changing of lines, special sales and special efforts.

There will be a continued demand towards decreased price and longer terms, which will be fought by the manufacturers as far as possible, but it will probably be a losing fight.

The coin-operating devices will be much featured. The amount of actual use of them will be a disappointment to the manufacturers of the coin devices.

Free trial in the home is an individual problem and not a general question. It can be successfully handled by those using that system of selling. At the same time, firms with improper sales set-up will find free trial impracticable.

The guarantee situation remains approximately as it is at the present time.

There will be an increased sale of devices for air conditioning, water cooling, truck refrigeration, for the sale of quickly-frozen foods, and an increased use of the electrical devices in vending machines.

It is our belief that the refrigeration business will remain definitely as seasonable.

In regard to refrigeration dealers and distributors using other merchandise: Firms duplicating will always lose maximum results. The line best suited depends upon the experience of the sales organization proposing to do the selling. A radio firm would make a mistake to concentrate on electrical ranges and oil burners.

In regard to ELECTRIC REFRIGERATION NEWS: We think their service is admirable and trust to see it continue during 1932.

FRED GENNETT,
Secretary.

Kuebler

Uniflow Manufacturing Co.
Erie, Pa.

Editor:

We have your letter of the 22nd and will endeavor to answer your questions and would appreciate your sending us the consolidated answers to these questions from all the manufacturers, after you have received them, in order that we might see what is the concensus of opinion of all others.

1. We are inclined to think there will be more electric refrigerators sold in 1932 than in '31, although we feel that under the conditions and what 1932 holds in prospect as to general business, that if there are as many sold in 1932 as in 1931, that it should be considered very good. We, however, expect to sell considerably more because of the new outlets we have obtained and the fact that the older ones are better organized.

2. We expect to see some improvements in design within some cases, perhaps larger models selling for less money. We believe there will also be a large number of small units on the market and a large number of them sold. We believe that the small refrigerator will still sell in large quantities as long as pocketbooks are not so fat.

3. We are not competent to say much about the commercial market, for the reason that we have done very little in the commercial field to date.

4. We believe that those who have a rather extensive number of distributors now, will endeavor to intensify this distribution. Those who do not have quite so extensive a distribution will endeavor to increase it.

5. To make established merchants good retailers of electric refrigerators is quite a problem. There are a certain number who respond to suggestions of better merchandising. There are many, however, who borrow a nursing bottle.

6. As long as money is scarce with many, there will be long terms offered in certain cases. I believe that as quickly as it is possible, terms will be shortened.

7. There seems to be some evidence of the fact that a coin meter device is a passing fad. A little reasoning will convince one that paying $7.50 at the end of the month is less of a hardship than paying 25 cents a day. The one bad feature in connection with the coin meter sales in some cases we know of, is where they require no down payment whatever. We do not believe that this is good business and is likely to lead to much grief.

8. The matter of free trial in some cases that we know of has proved fairly satisfactory. In other cases it has been rather unsatisfactory.

Where a prospect is really interested and is determined to buy an electric refrigerator, but must be actually convinced of its benefits by actual trial, there is not so much danger, but the danger comes in from the result of salesmen or dealer who, without any obligation on the part of the prospective customer, desires to have his refrigerator make the entire sale by placing same in the home. Any extensive amount of this is going to tie up a considerable amount of the merchant's money with the expense incident to take-backs.

9. We believe that the tendency is to shorten guarantees. Really, we know of no reason why a refrigerator should be guaranteed three years or even two years, when such things as automobiles are guaranteed 90 days, and many other devices only a year or less.

Too many cases might come up where it is in a position for a dealer or manufacturer to make good when it would be quite difficult to prove to the user that he is wrong or it has been abused, and if you win, you lose.

10. We are not competent to advise regarding any of these items, except, perhaps, water coolers. We believe that industries and offices of all kinds will purchase more water coolers when they have more money to spend for fixtures.

11. The industry, without a doubt, will endeavor to continue its efforts to build up refrigeration business in the colder season of the year. There is just as much reason for an electric refrigerator in the home in the Winter as in the Summer.

12. It seems to me that local circumstances determine whether a refrigerator dealer can satisfactorily market a companion line, depending on how well the companion line is pushed by active dealers in the same community. Perhaps oil burners or radios would be the best of the lot, and perhaps of these two, radio is the better—yet radio business is in a chaotic state.

We think REFRIGERATION NEWS is a very good paper for the refrigeration industry. If it were possible to determine the number of electric refrigerators manufactured and the number sold by manufacturers each month, as well as the number of refrigerators sold by the dealers each month, it would be very valuable material, not only to manufacturers, but dealers as well.

The automobile industry, particularly General Motors, has found this information of inestimable value in guiding their program.

C. A. KUEBLER,
President.

Merrick

Westinghouse Elect. & Mfg. Co.
East Pittsburgh, Pa.

Editor:

Any one wishing to forecast the future of industry at this time has only one item of speculation to deal with—namely, when the upturn in the business world may come.

This, however, is the one point on which very few aspire to prophesy. There are too many uncertain factors—uncertain in their measure because they have not been present in the same way in former business recessions. Never before has the world been so generally closely knitted together in its economic life.

Never before has ownership of the world's property, represented by securities of all kinds, been so widely distributed. Never before has speculation in these securities been so universal, and never before have so many people been led to look to speculative gains as a reliable provision of living expenses.

These things grew naturally out of the war period and its aftermath of post war expansion—the boom period which had its closing chapters in 1929. Supply and demand in the economic world became unbalanced—every source of supply was built up to the utmost during the war period and the stimulation was continued through the period of reconstruction.

When those countries, who had been only consumers throughout these periods, became again producers, output was piled on output, and the utter disorganization of interchange which is still with us made itself evident.

The operation of these processes could not help leaving a deeply significant imprint on the credit situation of the world, and international political complications, interwoven with the situation, and still far from solution, aggravate the result.

Thus, we have the uncertainty of when the turn will come, but, on the other hand, we have the certainty that the turn will come. We have, likewise, the certainty that the period of stress through which we are passing is laying the foundation for greater and sounder progress in the future. Industry must recognize this as a period of wholesome reconstruction. Those which first recognize the situation in this light will be the ones which profit most largely.

They will profit in the way of better returns from the actual business of the immediate present and still more largely in the future, which is surely coming, when the efficiency and strength developed in making ends meet under adverse conditions can be applied to serving the enormous needs of this country and of the world when the dammed-up buying power is released.

Present lines of products are being revamped, new and useful lines are being sought out, research is busy, manufacturing processes are being refined for higher quality and reduced cost, distribution means and methods are being analyzed, markets, both present and possible for development, are under close study. Industry will come out of the depression more fundamentally organized than ever before. This is the only way out. No nostrums will serve.

The electrical industry is especially typical in this respect—possibly more than typical because of the great fields of adaptability still in view ahead. Electrical industry is fortunate in that its service is a foundation stone of every industrial structure.

Electricity serves every individual of the modern community—in his home, in his travels, in the manufacture of every article which he uses, in the transport of these articles, in turning the hours of darkness into light, in furnishing heat, in aiding the searches after health—in fact, in universal service.

The guarantee is obvious for a continued and increasing opportunity for business in the field of the service of electricity to these manifold uses as well as in the broad field of manufacture of electrical apparatus requisite in the application of this service. The diversity factor is unparalleled as to both.

The position of these industries is unquestioned and their growth is to be measured only by the assuredly returning prosperity of the relatively near future.

F. A. MERRICK,
President.

Swope

General Electric Co.
Schenectady, N. Y.

Editor:

The electrical industry is in a peculiarly fortunate position, for even in the past year there has been an increased consumption of electricity in the homes, mainly because of the installation of a greater variety of electrical appliances. In this year, also industrial companies have modernized their productive methods, requiring new applications of electricity.

The Pennsylvania Railroad has embarked on a great program of electrification and this undoubtedly will be followed by others, where density of traffic, the convenience of the traveling public and economic considerations show that a change to electric operation is advantageous.

Because these things have been true in such a poor year as 1931, we look forward to 1932 and the succeeding years with confidence. We think that conditions in our country in 1932 should be at least as good as in 1931, after which we can look forward to a gradual increase in the electrical manufacturing business.

GERARD SWOPE,
President.

THIS ISSUE
12,000 COPIES

Merchandising Section

IN TWO PARTS
PART ONE

ELECTRIC REFRIGERATION NEWS

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The business newspaper of the refrigeration industry

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COPELAND HOST TO DISTRIBUTORS AT CONVENTION

900 To Attend Annual Detroit Meeting Jan. 18, 19

MT. CLEMENS, Mich., Jan. 12.—Anticipating an attendance of between 800 and 900 distributors and dealers from every state in the union and from some foreign countries at the annual Copeland convention to be held in Detroit, Jan. 18 and 19, extensive preparations are being made at the offices of Copeland Products, Inc., to entertain and instruct the visitors.

Monday, the Copeland staff of field representatives gathered at the factory to spend this week in completing final arrangements.

Headquarters for the convention will be at the Book Cadillac Hotel, while the convention itself will be held in the Masonic Temple. Monday evening, Jan. 18, a dinner will be held at the Book Cadillac at which company officials will speak.

The convention will be addressed by William R. Wilson, chairman of the board, Copeland Products, Inc., and Louis Ruthenburg, president.

Mr. McElhinny will speak on the business outlook for electric refrigeration in 1932 and outline Copeland's 1932 plans. He will also introduce the 1932 Copeland line.

Ralph M. Douglass, advertising manager, and Paul Cornell, president of

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FRIGIDAIRE MAN GETS ORDER ON NEW YEARS

DAYTON, Ohio—E. A. Braseth, district salesman for the Otter Tail Power Co., of Oakes, S. D., qualified as the first Frigidaire man to close a sale in 1932. The order was for commercial refrigerating equipment to be installed by the People's Store of Kulm, S. D. A. J. Smith, the store manager, signed the order at 12:01 a. m. on Jan. 1.

Mr. Braseth's feat was announced by Frigidaire Corp. in connection with their "Pace Setting Campaign" extending through the first half of January, with which the 1932 activities are being launched.

Post cards have been supplied salesmen and dealers, upon which to list

(Concluded on Page 2, Column 5)

MERCHANT & EVANS PLANS TO EXTEND DISTRIBUTION

PHILADELPHIA—The M & E refrigerator, manufactured by the Merchant & Evans Co., will get distribution as far west as the Mississippi river during 1932, according to F. E. Wilson, sales manager of the manufacturing concern.

The Merchant & Evans Co. has previously operated chiefly on the Eastern seaboard.

Wilkining, Inc., distributor of Philco radios in metropolitan Philadelphia, has been appointed M & E refrigerator distributor, Mr. Wilson has announced.

Other plans for 1932 include the manufacture of mechanical units for drinking water companies, soft drink dispensing machines, and commercial machinery from ¼-hp. to 2-hp. capacity.

The commercial line also includes water and air cooled compressors in several sizes.

DOLVIN NAMED ELECTROCHEF DISTRICT SALES MANAGER

DETROIT—A. H. Jaeger, general sales manager of Electromaster, Inc., announces the appointment of Paul R. Dolvin as district sales manager for the Electrochef electric range in the southeastern territory.

Mr. Dolvin has been district manager for Electrol, Inc., in the Middle West. In his new position he will make his headquarters in Atlanta. It will be going back home for Mr. Dolvin, who is a native of Green County, Georgia.

Inaugural Ball To Feature G. E. Convention

CLEVELAND, Ohio—More than 150 persons—distributors, district representatives, division managers—are expected to attend the fifth annual convention of the General Electric refrigeration department, Feb. 1, 2, and 3 at Coral Gables, Fla., officials state.

Headquarters will be at the Miami-Biltmore Hotel and the Miami-Biltmore Country Club adjoining. Governor Carleton of Florida will be the honored guest and will deliver an address of welcome at the first session.

A feature of the first night will be the "First Inaugural Ball of Refrigerania," at which, although plans have not been completed, Arthur S. Dunning, first "president of Refrigerania," will be inaugurated and his cabinet-elect sworn in.

The cabinet is composed of A. F. Head, Indianapolis; Philip H. Harrison, Newark, N. J.; Mark Wright, San Antonio, Tex., secretary of health; C. L. McCrea, Washington, D. C.; K. A. Connelly, Billings, Mont., and George Belsey, Los Angeles. These men are the

(Concluded on Page 18, Column 1)

NORGE SALES IN 1931 SHOW 460% INCREASE

DETROIT—An increase of 460 per cent in sales for 1931, as compared with 1930, is reported by Howard E. Blood, president of Norge Corp., in his year-end statment.

"Our sales for December were 417 per cent, as compared with December sales a year ago," said Mr. Blood. "Every single month of 1931 showed a substantial increase over the corresponding month a year ago."

Plans for 1932 as announced at the Norge distributor convention at French Lick in October were reviewed by Mr. Blood, and include intensified sales promotion, national merchandising and advertising, and enlarged personnel of divisional and district sales managers.

Norge plants will be operating on a full-time basis within two weeks, Mr. Blood stated, in order to fill orders far in excess of a year ago. The acquisition of the former Alaska Refrigerator Corp. plant, at Muskegon Heights, Mich., gives added manufacturing facilities.

WESTINGHOUSE GIVES '32 PLANS AT 30 MEETINGS

Advertising Program, 4 Water Coolers Announced

By Phil B. Redeker

DETROIT—Introduction of four new water coolers, formal announcement of the WI-30 model for apartment house or kitchenette use, an outline of the 1932 Westinghouse "greatest" advertising program, and extended plans for better salesman education were high spots at the meeting held Jan. 8 by the Westinghouse Electric Supply Co. of Detroit.

The meeting was one of 30 or more being held by Westinghouse branch sales houses and refrigerator distributors throughout the country, at which the announcements as listed above are being made.

More than 90 dealers from the Michigan and northwestern Ohio territories, as well as members of the forces from the offices of the Westinghouse Electric Supply Co. in Detroit and Toledo attended the Detroit meeting.

The occasion also marked the first gathering of the Michigan dealers under the new distributorship of the Westinghouse Electric Supply Co. of Detroit, the Dalrymple Co., former distributor, having gone out of business just before the close of the year.

Two pressure coolers and two bottle coolers, added to the WT-501 model al-

(Concluded on Page 2, Column 5)

Norge To Have World Fair Exhibit

CHICAGO—A contract to exhibit electric refrigerators in the Electrical building of A Century of Progress Exposition, Chicago's World Fair, has been signed by the Norge Corp., exposition officials announce.

The Norge Corp. also signed a contract to exhibit electric refrigerators in two of the dwellings and in the apartment building in the Housing Group.

New Features In this Issue

On inside pages of this issue of ELECTRIC REFRIGERATION NEWS appear a number of "how-to-do-it" merchandising stories designed to help salesmen, dealers, and distributors do a more intelligent and thorough job of selling electric refrigerators.

The ideas contained in these stories are not the concoctions of some editor or special writer or "merchandising expert" who sits back in a swivel chair and tells people how to run their business.

They are the tested ideas of active salesmen, dealers, and men out on the firing line of electric refrigeration selling today. If you like these stories—and tell us about it—we'll try to find more of them.

Readers are referred specifically to "How to Sell Refrigerators, as told by J. M. Wanner, national champion Westinghouse salesman," on page 22; "How to Display Refrigerators, as practiced by Frank Lindgren, Monrovia, Calif.," on page 21; "How to Get Prospects, as told by G. E. Evans, secretary, Detroit-Copeland Co.," on page 8.

COURT ADOPTS PLAN OF ZEROZONE CORP.

CHICAGO—A plan by which the Zerozone Corp. will be reorganized and its creditors paid in full was approved Jan. 6 by Federal Judge Woodward of the U. S. district court in the northern Illinois district. The plan was submitted by C. E. Jernberg in conjunction with the Zerozone Products Corp. of New York City.

Arthur H. Richland, executive vice president of Zerozone Products, made the following statement:

"Eight months ago, the Straus National bank was appointed receiver in equity for the Zerozone corporation with instructions from the federal court to continue operating the business for the benefit of the creditors and stockholders. In April, 1931, a contract was made by the receiver under which the sole selling rights of the Zerozone electrical refrigerators were granted to the Zerozone Products Corp., which was formed for that purpose.

"In spite of the obvious handicap of the receivership, a very substantial

(Concluded on Page 2, Column 5)

G. E. ANNOUNCES CONDITIONED AIR DISPLAY CASES

Commercial Line With New Features Revealed

CLEVELAND—"Conditioned air refrigeration"—claimed by General Electric engineers to be a new principle in commercial refrigeration—has been announced by Walter E. Landmesser, manager of the commercial division of the General Electric refrigeration department.

Consisting primarily of forced air circulation over the evaporator, this method of refrigeration (which is explained below in detail by Mr. Landmesser) will be applied to the General Electric commercial refrigeration line, which will be expanded to include display cases. One new General Electric display case model is pictured on this page.

"This new development is the result of intensive study, both in the General Electric Laboratories and in the field, to determine the best conditions under which maximum preservation of perishable foodstuffs may be obtained in commercial equipment," declares Mr. Landmesser.

"Facts gathered through this study showed that low temperatures of from 36° to 40° F. are necessary to inhibit the growth of bacteria, and that a high relative humidity of from 80 to 85 per

(Concluded on Page 18, Column 5)

SERVEL COMMERCIAL FIELD MEN CONVENE

EVANSVILLE, Ind.—The annual factory conference of commercial field representatives of Servel Sales, Inc., closed here Jan. 6, after a three-day session.

The meeting was called for the purpose of outlining the 1932 commercial sales program to representatives from districts throughout the United States.

C. A. Miller, sales manager of Servel Sales, Inc., greeted the group Monday

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RANGE CAMPAIGN PLANS ARE PRESENTED TO NEMA

NEW YORK CITY, Jan. 12.—Discussion of the $200,000,000 plan for market development was the chief feature of the mid-winter meeting of the National Electrical Manufacturers Association, held at the Hotel Biltmore, here, today.

The proposed sale of 1,000,000 electric ranges during the next three years is the fulcrum upon which the plan, as a lever, is expected to boost the electrical manufacturing industry.

Purchase of this number of ranges, according to NEMA officials, will result in a demand for other and allied electrical apparatus and supplies to the extent of $200,000,000.

Predicting that the plan would develop a united will and an organization consciousness in the NEMA, President Trumbull said: "A far-reaching major movement of this kind, launched in the near future, will have a tremendous psychological effect, as well as a very tangible one.

"Vision, courage and enterprise at a time like this is encouraging and contagious. Let us realize our interdependence for mutual profit and synchronize our efforts."

Mr. Berresford, managing director of

(Concluded on Page 2, Column 5)

COPELAND DISTRIBUTOR SHOWS BIG INCREASE

NEWARK, N. J.—Copeland refrigeration sales by the Binder Distributing Co., distributor for northern and central New Jersey for the first nine months of 1931 are 92 per cent greater than for the entire year of 1930, according to Benjamin Binder, president.

Sales schools, intensive sales programs, an increased commercial and domestic dealer organization are part of the 1932 campaign, which, Mr. Binder says, is based on a 250 per cent business increase as compared with 1931.

Conditioned Air in G. E. Commercial Cases

Frank Monaco, Cleveland cafe proprietor who was first to get a General Electric display case, explains "conditioned air refrigerator" to a fair customer.

REPORT IS RELEASED ON N.E.M.A. MEETING

MT. CLEMENS, Mich. The following official report of the last meeting of refrigeration division of the National Electrical Manufacturers Association has just been released by Louis Ruthenburg, president of Copeland Products, Inc., and chairman of the division:

The Refrigeration Division of NEMA held its regular monthly meeting Wednesday, Nov. 18, at the Book Cadillac hotel, Detroit, Mich. In attendance there were: Louis Ruthenburg, chairman, Copeland Products, Inc.; R. E. Smithson, H. M. Williams, J. A. Harlan, Frigidaire corp.; J. J. Donovan, P. B. Zimmerman, General Electric Co.; G. W. Mason, H. W. Burritt, Kelvinator Corp.; Howard E. Blood, Norge Corp.; Col. F. E. Smith, E. T. Williams, Servel, Inc.; H. J. Hunt, L. G. Lindsay, Trupar Mfg. Co.; G. M. Johnston, Universal Cooler Corp.; M. C. Terry, Carl D. Taylor, Westinghouse Electric & Mfg. Co. Others present included F. M. Cockrell of ELECTRIC REFRIGERATION NEWS and Glenn Muffly and E. S. Aumend of NEMA.

Hear Directory Proposal

The division had before it for consideration a full program of important subjects relating to the improvement of the refrigeration industry. Among the items discussed was a proposal by the ELECTRIC REFRIGERATION NEWS, through its publisher, F. M. Cockrell, offering to assist the division in its effort to collect complete industry sales statistics by interesting all non-member manufacturers to participate. Mr. Cockrell also stated that ELECTRIC REFRIGERATION NEWS contemplates the publishing and distributing of an industry directory which will contain information concerning dealer-distributor operation, manufacturing data, and complete industry statistics. The division, in referring the proposal to the Commercial Practices Committee, expressed its appreciation of the offer.

Work on Nomenclature

The recently appointed sub-committee on Nomenclature of Domestic and Commercial Machines held its first meeting during the morning and got its work well under way.

The Commercial Practices Committee reported that for the present the Patents Subcommittee would be disbanded and that the patent situation would be studied by an especially qualified executive who, after investigation, would make a report. The Kelvinator Corp. is generously giving of J. M. Fernald's time to carry on this work.

The same committee also reported that its subcommittee on Traffic had held a meeting Sept. 11 and discussed the Interstate Commerce Commission's ruling on freight rates.

Estimate Rate Increases

It was pointed out that as far as the refrigeration industry is concerned, the proposed increase in rates will probably be two cents per 100 lbs. for electric refrigerators, $3.00 per car for lumber and two cents per 100 lbs. for sheet metal. These proposed increases which were submitted for approval to the carriers are temporary and for a period ending March 31, 1933.

Another item considered was the question of subordination of contracts to mortgages, which question has been under discussion for some time. The Commercial Practices Committee re-approved a previous action to the effect that subordination was acceptable in the event that the risk was considered a good one, properly endorsed and that 50 per cent was paid down and the balance due not to extend over a period greater than two years.

Statistical Inaccuracies

Glenn Muffly reported that the mechanics of the collection of the division's sales statistics continued to show some inaccuracies, but that he was working with the individual member companies to eliminate the few remaining difficulties. Mr. Muffly was of the opinion that the collection would be corrected and ready for distribution by the early part of 1932.

In view of the fact that the Refrigeration Bureau of the National Electric Light Association requires sales statistics by states, it was decided to have the corrected division statistics broken down and furnished to NELA.

Report on Coin Meters

The Commercial Practices Committee again reported on the matter of the coin meter application which has been looked upon as a retail sales stimulant in certain territories. Its opinion that the use of a coin meter to finance the purchase of refrigerators is considered unsound unless an adequate down payment is secured upon delivery was approved by the division.

The committee was of the opinion that the practice of trial installations for the promotion of sales, should be limited to a specified amount of time and it was its opinion that 10 days should be the approximate limit.

The next meeting of the division and its committees will be held Jan. 22, 1932, at Dayton, Ohio.

Hear Westinghouse Plans for 1932

Nearly 100 Westinghouse dealers and branch office officials attended the Detroit meeting, one of the 30 or more being held this month to announce Westinghouse plans for 1932.

Westinghouse Presents Advertising Plans, Water Coolers To Salesmen in 30 District Meetings

(Concluded from Page 1, Column 3)

ready being distributed by Westinghouse, forms a formidable line of this type of merchandise to be exploited in 1932.

A finish of chrome and lustrous black Micarta, adjustable automatic temperature selector, and a compressor enclosed in a hermetically sealed shell of steel are features of the bottle cooler models MB-5, and CMB-4; and the pressure coolers MT-8 and CMT-4. Models CMB-4 and CMT-4 have a special compartment (with lock and key) for chilling beverages and fruit.

Especially adaptable for apartment house or studio use is the Y1-30, a compact 3-cu. ft. model standing but a trifle over 35 in. high.

"Dual-automatic" will be the new and main point of sales appeal to be used in Westinghouse advertising for 1932, but the well-known points of beauty and balance will not be forgotten, Robert Beatty of the Westinghouse Electric and Mfg. Co. of Mansfield, Ohio, told the assembled dealers.

"We are going to use the *Saturday Evening Post*, the *American Magazine*, the *Woman's Home Companion*, *Collier's*, the *Cosmopolitan*, *McCall's*, *Ladies' Home Journal*, *Good Housekeeping*, and *Better Homes and Gardens* to create 122,000,000 impressions of the 'Dual-Automatic' idea in what will be Westinghouse's greatest campaign," Beatty stated.

The Westinghouse refrigerator is said to be "dual-automatic" because of the selective temperature control (seven point temperature selector) which is automatic under ordinary conditions and because of the "built-in watchman" (Spencer disc) which gives automatic protection against unusual electrical and temperature conditions.

To typify this double protection, Westinghouse has introduced into all its refrigeration activity the pictures of two stalwart, genial, alert watchmen.

Newspaper advertising by Westinghouse during 1932 will be what Beatty terms "highly competitive," and will stress the "dual-automatic" appeal. Mats for dealers' use in full-page, half-page, and smaller insertions have been prepared.

Approximately 150 trade publications will be used by Westinghouse in its 1932 advertising, it was stated.

A portion of each advertisement inserted in one of the leading national periodicals listed above will be devoted to the Westinghouse family of electrical household products. This tie-up is included to emphasize the fact that the refrigerator is a product of an organization prominent in the field of household appliances.

An innovation in the field of direct mail work will be brought forth in the three-piece campaign which has been informally entitled "The Mystery at the Home of Mrs. Johnson."

Each of the pieces bears the name of the prospect printed into the story, the action of the plot taking place right in the prospect's own home. The story is handled in the manner of a detective thriller, the first mailing introducing the mystery element, the second bringing to bear Sherlock Holmes' great powers in exposing the need for electric refrigeration, and the third introducing the two Westinghouse watchmen to stop the cash food losses.

"Records show that 60 per cent of trained refrigerator salesmen are successful as quota-makers, and as 90 per cent of the salesmen are untrained, one can get an idea of the possibility for success that lies in the training of more salesmen," stated William Howlett, sales promotion manager for the new Detroit distributorship, in speaking on the "Hiring and Training of Salesmen."

"Wherever the dealer organization warrants it, we will come to his town to hold training schools for his salesmen, and where there are a number of small dealers within a limited area, we will hold a provincial school for that area," Howlett stated in explaining the distributor's plans for increased sales training in 1932.

Sincerity is a major requisite in the prospective salesman-employe, Howlett, told the dealers in speaking on the hiring of new men. Neat appearance and pleasant, cheerful demeanor are important factors, and the man must have enough far-sightedness and financial standing to see beyond the immediate cash return in the matter of remuneration.

Classified advertising, bonus payments to employes for getting new employes, the chamber of commerce, the city hall members, prominent users, and recent college graduates represent good sources for the uncovering of salesmen, Howlett pointed out.

"Go out and get it" was the message regarding quotas given to the dealers by P. E. Rinehart, refrigeration sales manager for the Westinghouse Electric Supply Co. of Detroit and chairman of the meeting.

Mr. Rinehart warned the dealers that, while the quotas had been set on a fairer basis, they would be higher for 1932, and suggested that the dealers hire sub-dealers or at least a salesman if they had too many other duties which prevented them from getting out and doing some specialty selling themselves.

James E. Hugo, sales promotion manager of the Westinghouse Electric and Mfg. Co. Pittsburgh office, explained the value of national advertising in weekly or monthly periodicals and in the 150 trade papers, showing how the salesman could tie in his efforts with theirs by keeping informed as to the advertising used.

In speaking of newspaper advertising, Mr. Hugo advised his dealers to use their newspaper advertising in an intelligent manner and at times when prospects were likely to be thinking about refrigeration, at times when they would have a surplus of money, such as after pay-days and bonus days in factory towns.

Selective use and proper follow-up are two factors necessary to a successful direct mail campaign, he declared.

During the morning session Mr. Rinehart appointed dealer committees to confer and draw up recommendations on the following subjects: (1) sales promotion activities and education; (2) sales rules and regulations; (3) service as an aid to sales; (4) financing and time payment.

E. B. Parker of the Harbeck Radio store at Battle Creek, Mich., chairman of the committee on sales promotion, with the aid of Mr. Howlett, drew up a set of recommendations which included a weekly change in window display, maintenance of one cabinet of each model on the floor (one in operation), training of salesmen to "sell gracefully," sales contests operative throughout the year, and cooperative advertising with the distributor on a quota basis.

Sales rules and regulations recommended by the committee headed by F. B. Schlesinger of the Stanger Furniture Co., Ann Arbor, Mich., assisted by Mr. Beatty, included remuneration to salesmen on an absolutely straight commission basis, monthly bonus plan (amount to be set by individual dealer), open territories in dealership organizations, the creation of a reserve held out of commissions to take care of repossessions, definite hours for canvassing and interviewing.

Marvin Leach of the Service Tire Co. of Kalamazoo, chairman on the committee on service, gave the report which was drawn up after a discussion by the committee with F. Perritt, service manager for the local distributor.

It was recommended that dealers select a good man and send him to a service school, that every refrigerator received by the dealer be put on the "line" and tested for 24 hours immediately after arrival, that all complaints be answered with all possible speed, and that the service man be trained to get leads for prospects.

W. J. Minnis and H. Hallberg from the Commercial Investment Trust Corp., and Fred Wyatt, dealer contact man for the Detroit distributorship, acted with the committee on financing.

G. H. Dean of the Dean Sales and Service at Jackson, Mich., made the following recommendations:

That the dealers use every effort to make 10 per cent the minimum down payment; the 12-payment plan is better than the 24; the C. I. T. collection plan was advanced as a means of taking the collection burden off the dealer; the 25-cents-a-day plan should not be used, the C. I. T. plan with a down payment of $7 being recommended to meet competition coming from the 25-cents-a-day plan; dealers should use the eight per cent down plus small carrying charge in billing enough refrigerators to keep an adequate floor display of all models during the peak months.

Those who attended, and the organization which they represented, are listed as follows:

George Brater, R. W. Badgero, and George C. Walz, Jr., Walz Hardware Co., Saginaw, Mich.; James Slack, Slack Bros., Bad Axe, Mich.; W. R. Tomlin, and H. C. Riggle, Tomlin-Riggle Motor Sales, Alma, Mich.; B. Bidwell, Midland.

F. B. Schlesinger, and Paul Schlanker, Stanger Furniture Co., Ann Arbor: M. R. Huber, E. B. Parker, J. F. Huber, and E. W. Harbeck, Harbeck's Radio Store, Battle Creek, Mich.; R. A. Walker, Walker Electric Co., Marshall, Mich.

J. E. Smith, Bentz Bros., Hillsdale, Mich.; G. H. Dean, Dean Sales & Service, Jackson, Mich.; W. Wendorf, and A. Wardle, Wardle & Sons, Clio, Mich.; R. W. Roser, L. R. Pierce, D. M. Hill, Coldwater, Mich.

M. O. Leach, Service Tire Co., Kalamazoo, Mich.; C. H. Sturmer, Sturmer's Department Hardware, Port Huron, Mich.; G. M. Wayt, Wayt & Son, Ludington, Mich.

H. A. Bonsteel, the J. W. Greene Co., Toledo, Ohio; H. L. Merrill, Wauseon, Ohio; R. H. Johnston, Delta, Ohio; G. T. Priest, Montpelier, Ohio; W. E. Chester, and D. A. Ricketts, Tiffin, Ohio; Harry Smith, Wapakoneta, Ohio.

R. M. Bowden, and W. F. Spragg, Board of Water and Electric Light Commissioners, Lansing, Mich.; R. Laubenthal, East Lansing Electric Co., East Lansing, Mich.; J. W. Dean, Montpelier, Ohio; B. L. McKinley, McKinley Motor Co., Lima, Ohio; J. U. Cusson, and J. F. Cusson, Flint, Mich.; P. Schippers, Service Tire Co., Kalamazoo, Mich.

P. Faulkner, and J. R. Hodson, Montpelier, Ohio; Fred McCaul, McCaul Lumber Co., Ferndale, Mich.; Louis Erb, Erb-Kidder Lumber Co., Royal Oak, Mich.

G. H. Miller, J. H. Campbell, W. F. Tschaeche, Phil E. Rinehart, Fred Wyatt, William Howlett, T. LaFontaine, F. Perritt, Charles Perry, A. O. Fredricks, and Linda Kelley, the Westinghouse Electric Supply Co., Detroit.

Robert Beatty, George Constance, the Westinghouse Electric and Mfg. Co., Mansfield, Ohio; J. E. Hugo, Westinghouse Electric and Mfg. Co., Pittsburgh; W. F. Bissell, R. W. Ten Broeck, R. Vivian, Westinghouse Electric Supply Co., Toledo, Ohio.

C. Gury, John Howat, F. F. Washburn, W. P. Ballinger, C. F. Watson, V. J. Melito, Ray Schneider, A. W. Rankin, and A. J. Stocker, Approved Appliances, Inc., Detroit.

Paul Kurth, Uston Hardware Co., Birmingham, Mich.; L. S. Kidder, Erb-Kidder Lumber Co., Detroit; E. Sidle, Sidle Co., Van Wert, Ohio; G. E. Graves, Y. & E. Mfg. Co., Rochester, N. Y.; T. J. Forsyth, Gregory, Mayer & Thom Co., Detroit; W. J. Minnis, H. Hallberg, C. I. T. Corp., Detroit.

COPELAND ARRANGES FOR '32 CONVENTION

(Concluded from Page 1, Column 1)

Paul Cornell, New York, Copeland's advertising counsel, will discuss 1932 advertising plans.

James W. Beckman, in charge of public relations of Copeland, will outline this new feature of Copeland's merchandising plans. Charles W. Hadden, general sales manager, will speak on distributor and dealer methods.

A feature of the convention will be a play entitled "Shoes," written for the occasion by Mr. McElhinny. The play is composed of 12 scenes, and will run throughout the convention. Rehearsals of those taking part are now being held.

The second day of the convention will be devoted to commercial refrigeration, service, methods of manufacturing and other details connected with the mechanical end of the business.

Inspection will be explained, and the entire dealer organization will be taken in busses to Mt. Clemens to view the factory and the two new additions which will be shown to Copeland distributors and dealers for the first time.

ELECTRIC RANGE SALES PLAN DISCUSSED BY NEMA

(Concluded from Page 1, Column 2)

NEMA, left no doubt in the minds of the members as to the successful operation of the plan when he said:

"No other appliance affects so directly and materially so many lines of electrical manufacture as the electric range. Is the plan workable? An unqualified affirmative to the question seems indicated.

Such a plan is NEMA'S opportunity at this time to start a program of far-reaching effect, not only of present benefit, but extending into the future for a long time to come, believes F. C. Jones, chairman of the wire and cable section.

"The challenge was made by H. J. Mauger," reports F. C. Hodkinson, chairman of the wiring materials division, "when he suggested such a plan at our NEMA policies meeting last May, that NEMA was not 'merchandise minded.' NEMA has waited for a practical plan, and the plan suggested seems to offer enormous possibilities, not only for NEMA, but for other branches of the electrical industry."

L. R. Brown, chairman of the transformer section, reports that his section had occasion to hear the plan explained at its meeting in Chicago, Dec. 3. It was the opinion of the section at that time, he said, that "the program had real merit and was worthy of serious consideration by all members of the NEMA organization."

Electric cookery was characterized by George A. Hughes, president of the Edison General Electric Appliance Co., as the electrical industry's next great success: "The sleeping giant which, when fully aroused, will do what the electric refrigerator has done for the power company load. The addition of one electric range customer is the same as adding four ordinary residence lighting customers; and mighty few residence customers are being added nowadays."

FRIGIDAIRE SALESMAN GETS FIRST 1932 SALE EARLY

(Concluded from Page 1, Column 1)

their first 1932 sales. "If we can get each of our 15,000 dealers and salesmen to close their first sale before Jan. 16, we will have accomplished the purpose of this campaign," said J. J. Nance, head of the sales planning division.

Mr. Nance states that the first two weeks of January ordinarily comprise the dullest period of the year, chiefly because the salesman is slow in getting under way. The object of the campaign is to get him away to a flying start, believing that he will keep increasing his momentum until the height of the selling season.

The campaign was announced to the field organization through phonograph records mailed to reach dealers the day after New Year's.

According to Mr. Nance, a feature on the reports of sales of household equipment received is an unusual percentage of sales of the larger models. There has been a sprinkling also of orders for water coolers and other commercial equipment.

ZEROZONE REORGANIZATION PLAN APPROVED

(Concluded from Page 1, Column 4)

volume of sales was secured for the factory, resulting in a satisfactory profit for both the selling and manufacturing companies and has made possible the offer to creditors by which their claims will be paid 100 per cent in full."

Mr. Richland stated that the factory personnel would be kept intact and that plans are now in preparation for an active sales campaign to introduce the new Zerozone models on which production is already under way at the company's Chicago plant.

General Electric Announces

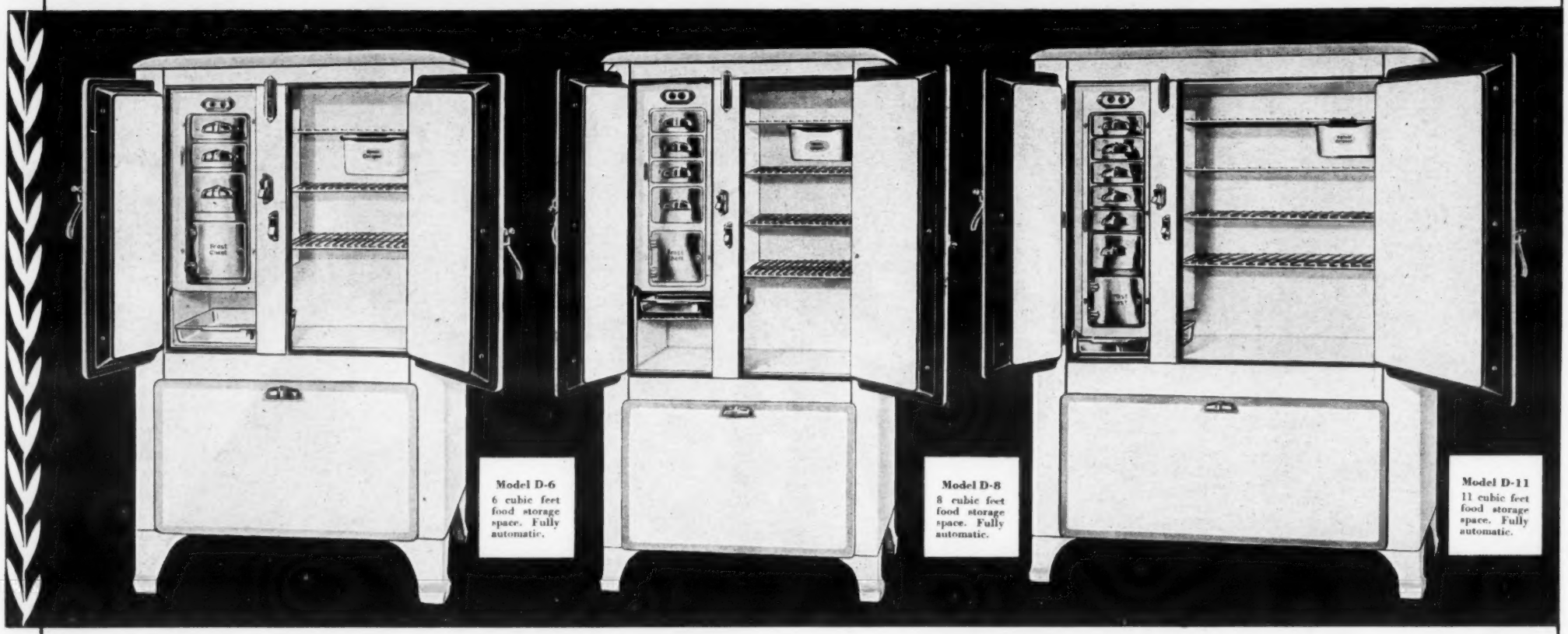
CONDITIONED AIR

COMMERCIAL REFRIGERATION

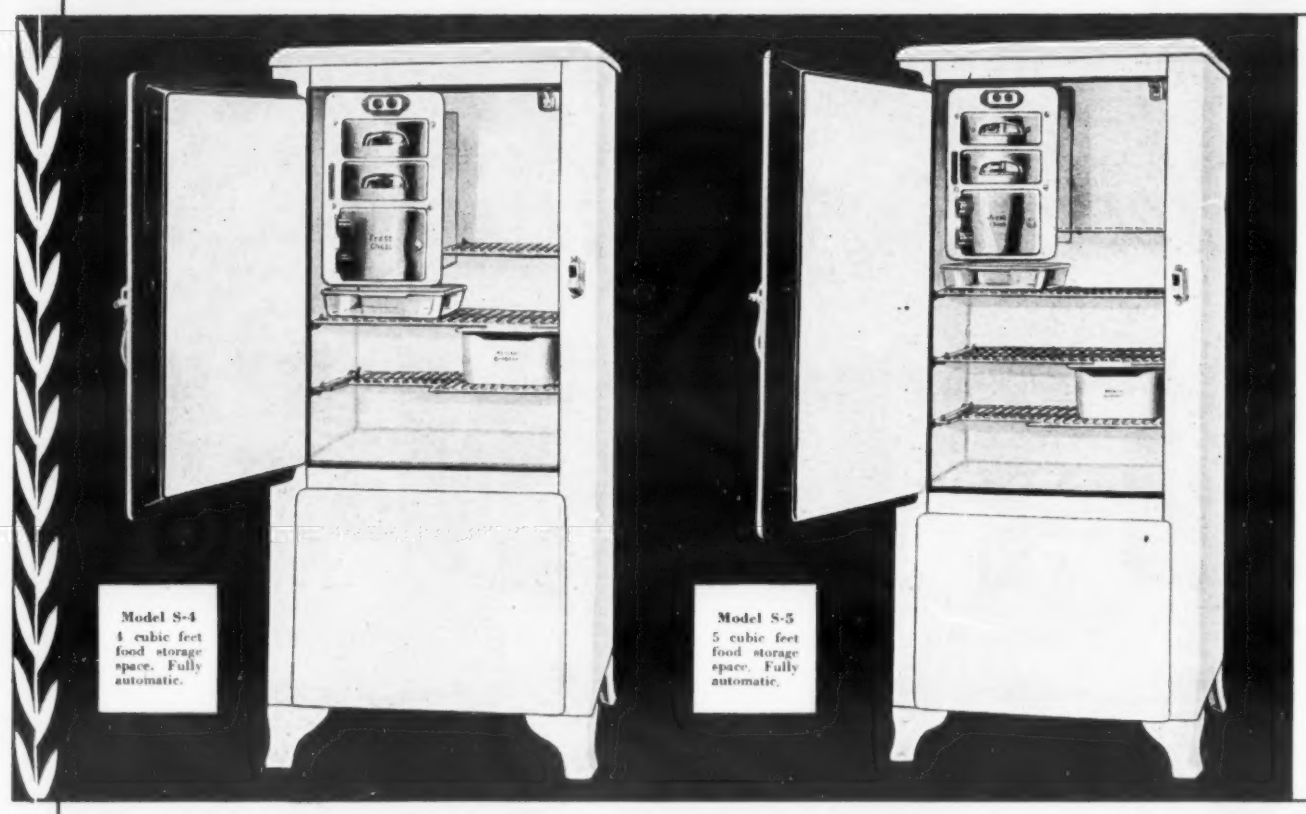
● A development as important to the preservation of bulk food as electric refrigeration itself. A contribution to electric refrigeration that will save hundreds of thousands of dollars in the handling of perishable foods.

SEE PAGES 12 — 13

KELVINATOR . . . LEADER IN


Model D-6
6 cubic feet food storage space. Fully automatic.
Model D-8
8 cubic feet food storage space. Fully automatic.
Model D-11
11 cubic feet food storage space. Fully automatic.

KELVINATOR . . . LEADER IN



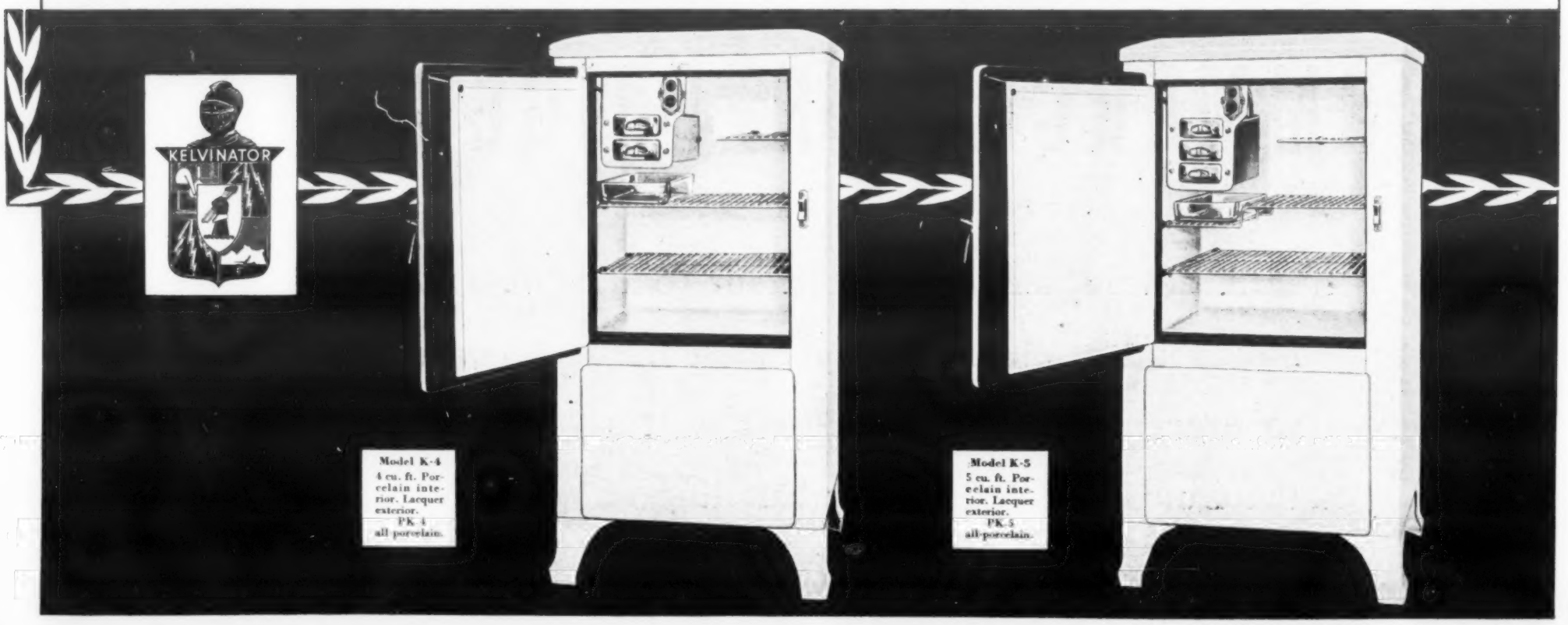
FOR 1932, Kelvinator presents the greatest Line of Domestic Cabinets in its 18 years in the Industry.

The new Kelvinator De Luxe Model—leader in the high-price field—represents the finest electric refrigerator money can build. There are five different Cabinets ranging in size from 6 to 22 cubic feet. They are porcelain inside and outside, and are *fully automatic* even to the electric light—the *only* fully automatic electric refrigerator built, with the exception of the Standard Model mentioned below.

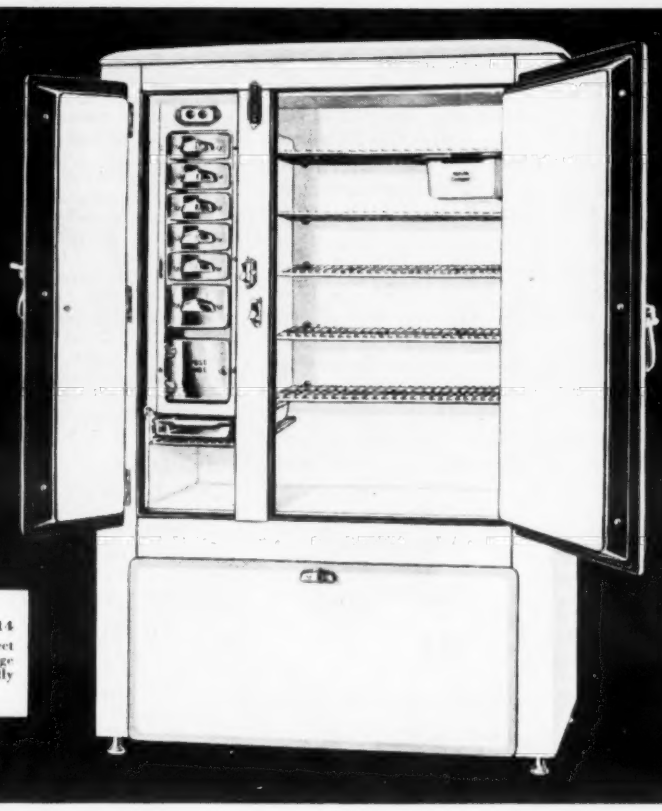
The Kelvinator Standard Model—leader in the medium-price field—has all of the noteworthy features of the De Luxe Model, differing only in finish. Each of the four different sized Cabinets is fully automatic and has full porcelain interior and exterior.

The Kelvinator "K" Model—leader in the

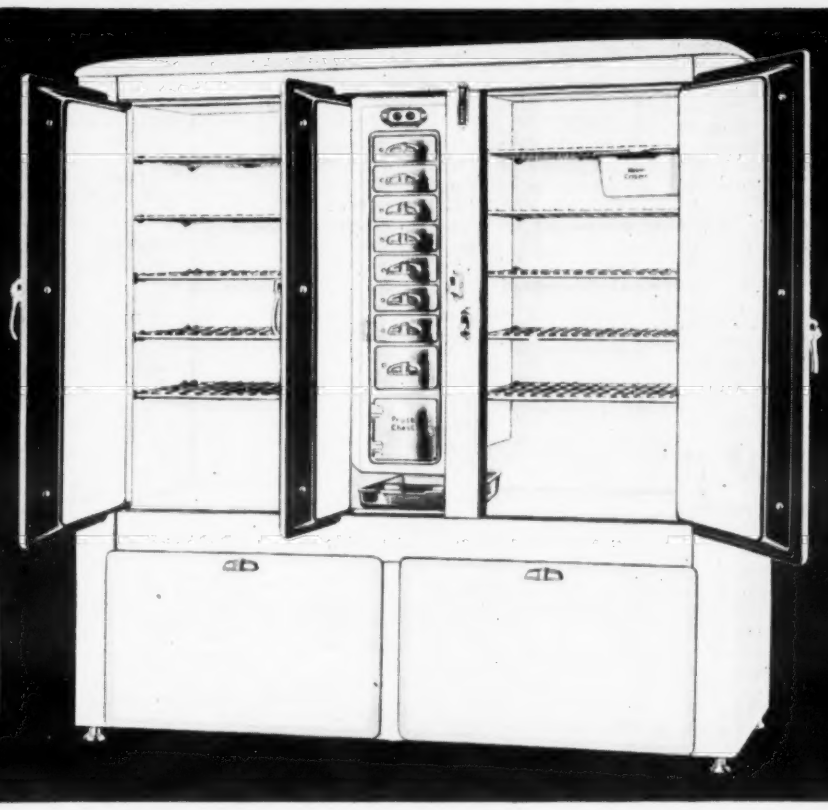
KELVINATOR . . . LEADER IN



THE HIGH-PRICE FIELD



Model D-14
14 cubic feet food storage space. Fully automatic.



Model D-22
22 cubic feet food storage space. Fully automatic.

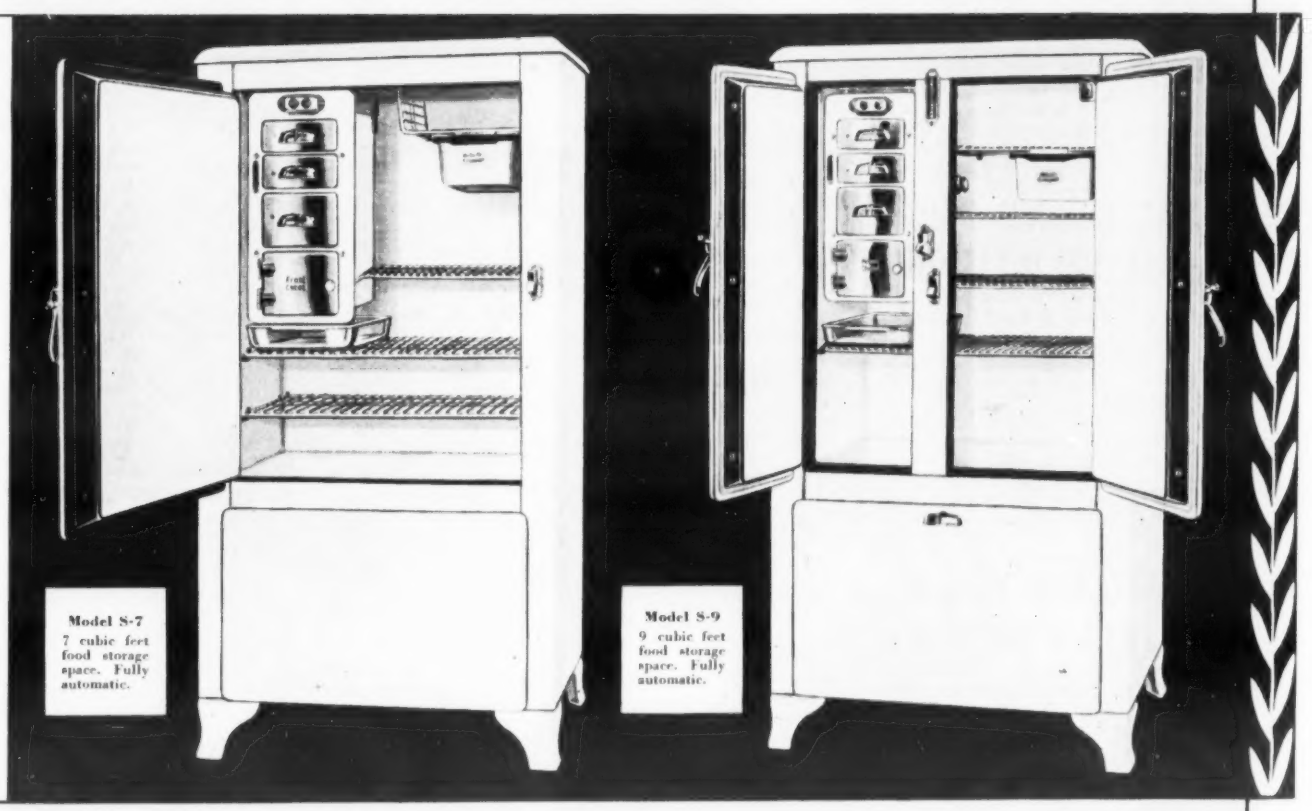
THE MEDIUM-PRICE FIELD

low-price field—brings a new and higher standard of quality and performance to buyers in the mass market. The four different size Cabinets are available in full porcelain or with porcelain interior and white lacquer exterior. The new "K" Model is unquestionably the greatest value in the low-price field and it represents a tremendous profit potential for Kelvinator dealers.

Complete information regarding this remarkable New Line and also details of the largest Advertising and Sales Promotion Program in Kelvinator history will be sent to responsible dealers upon request. Use the coupon below, or wire to-day.

KELVINATOR CORPORATION
14245 Plymouth Road Detroit, Michigan

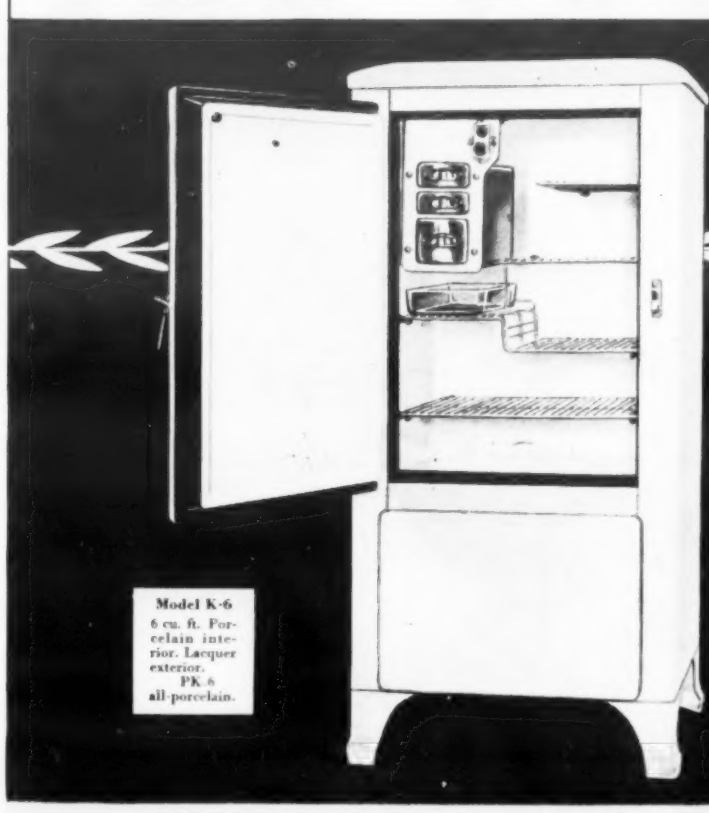
Kelvinator of Canada, Ltd., London, Ontario
Kelvinator Limited, London, England



Model S-7
7 cubic feet food storage space. Fully automatic.

Model S-9
9 cubic feet food storage space. Fully automatic.

THE LOW-PRICE FIELD



Model K-6
6 cu. ft. Porcelain interior. Lacquer exterior.
PK-6 all-porcelain.

Model K-7
7 cu. ft. Porcelain interior. Lacquer exterior.
PK-7 all-porcelain.

COUPON

Kelvinator Sales Corporation, Detroit, Mich.
Gentlemen: Send complete information about the 1932 Line and the 1932 Program.

Name_____

Street Address_____

City_____ State_____

ANNUAL KELVINATOR MEETING ON JAN. 18

DETROIT—Stockholders of the Kelvinator Corp. will meet Monday, Jan. 18, at 11 o'clock in the morning, at corporation headquarters.

Business to be taken up at the meeting, according to the announcement, includes the election of a board of directors to hold office for the ensuing year, or until their respective successors are elected and qualify. Reports of the president and other corporation officers relative to the operation, management and conduct of the corporation will be heard.

Consideration and ratification of the acts of the officers and directors of the corporation since the last annual meeting of the stockholders will form part of the meeting.

The transfer books of the corporation will not be closed, according to Merlin Wiley, secretary of the corporation, but only stockholders of record at the close of business Dec. 31, 1931, will be entitled to vote at the meeting.

ALLISON WILL ORGANIZE BUREAUS IN EAST, SOUTH

NEW YORK—The establishment of new local bureaus, chiefly through the East and South, plays an important part in the schedule of the field force of the Electric Refrigeration Bureau for the opening of the year, officials state.

Starting Monday, Dr. G. W. Allison was to visit five Pennsylvania cities. On completing this tour, he will head southward, spending the balance of the month in Delaware, Virginia, the Carolinas, and Georgia.

The first week of February will be spent in Alabama, Louisiana, and Georgia. Following a visit to Memphis on Feb. 8, Dr. Allison will address the national convention of the American Retailers' Association to be held in St. Louis Feb. 9 and 10 under the auspices of the St. Louis Chamber of Commerce.

Two new bureaus are to be organized this month in New York State with the assistance of Don C. Schively, field representative, one in Elmira, Jan. 19, and the other in Binghamton on Jan. 20.

Meanwhile, Mr. Schively has been assisting the state director of New Jersey.

FRIGIDAIRE BRANCH USES MOBILE SALES DIVISION

BOSTON, Mass.—A new kind of electrical refrigeration sales division—a Mobile Equipment Division—devoted to the field of transportation, was instituted this year by the New England Frigidaire sales region, H. W. Newell, manager, reports.

Headed by E. R. Ryan, the division installed Frigidaire equipment in dining cars, trucks, trailers, tug boats, passenger liners, freighters, yachts, destroyers, and submarines.

GIBSON WILL USE TRAVEL ADS IN 1932 CAMPAIGN

GREENVILLE, Mich.—The Gibson Corp. has made arrangements for solo poster advertising display on the sides of one of the largest fleets of motor vehicles in the country, according to Allen W. Church, in charge of the Gibson advertising account.

This fleet, composed of city cartage and transfer vehicles, inter-state motor freight carriers from coast to coast, carries only one advertisement on the side of a vehicle, and offers density of circulation in direct ratio to the density of population, says Mr. Church. The service is known as Travel Ads.

SWAFFIN HEADS HOTPOINT RANGE SALES FOR OUTLET

RICHMOND, Va.—F. H. Swaffin, formerly with the Edison General Electric Appliance Co., has been appointed manager of the new Hotpoint range department of the Commonwealth Refrigeration Co., Inc., General Electric refrigerator distributor.

According to R. S. Montgomery, president of the company, an organization very similar to their refrigeration organization will be set up to handle ranges.

202% OF QUOTA REACHED BY KANSAS CITY BUREAU

KANSAS CITY, Mo.—Final figures for the 1931 electric refrigeration campaign here reveal that sales were more than double the quota set for the Kansas City bureau, the exact percentage figure being 202.

The Kansas City Power & Light Co., handling four makes of refrigerators, sold in the neighborhood of 8,500 units, topping off its year's activity with 25 sales to its own employes just before Christmas.

• When You Visit Detroit •

By George F. Taubeneck

Prologue

Editor's note: Almost everybody in the industry gets to Detroit sooner or later, and this informal guide is offered both to the regular visitors and those who are looking forward to their first trip here.

Especially is this temporary successor to "An Editor on Wheels" directed to the hundreds of Copeland dealers and distributors who will be here next week to attend the Copeland convention.

• • •

All About Windsor

What's the first thing Mr. Detroit Visitor usually wants to do when he is ready to play?

Chorus (from all Detroiters who have had to entertain Good Old Jim the college classmate, Joe Binks from your home town, and Cousin Charley who just blew in as a sort of surprise): Canada!

Even the Aunt Sarahs and the Sister Mary's little boys want to go. Just so they can tell the folks back home they've been in Canada.

The healthy males, of course, want to survey business conditions in the King's Dominion. And incidentally—just incidentally, of course—they might want to find out at first hand just how that government-controlled liquor operation works out.

Most of these eager foreign travelers come back disappointed.

Perhaps, subconsciously, they are a bit akin to Tom Sawyer, who felt cheated on his first trip into Illinois from Missouri when he discovered that Illinois land was green just like Missouri's—instead of red as it was on his joggerfy-book map.

The Canadian side of the Detroit river is just ordinary flood plain, with fields, cows, hard roads, and occasional frame dwellings.

Windsor is a quiet, uneventful, sober small town—about as exciting as a neighborly evening visit at the home of the Joneses.

Liquor? Sure, you can get it. But not until after you've procured a hotel room and made out an income tax report or two.

It's much simpler, much quicker, and almost as cheap to get good joy-water in Detroit.

Of course, if you're going on a party at one of the hotels with a bunch of friends—say, after a convention—that's different. It's always fair weather, etc.

But Windsor for Windsor's sake . . . Well, you'll see. And remember that we warned you.

• • •

Crossing the Bar

To be sure, there's the adventure of going across. Methods of locomotion are numerous: via the Ambassador bridge, the tunnel, the ferry, the train, motor boat, airplane, or swim. None of the last three methods are recommended. The authorities frown upon them.

Busses will take you over and back either through the fine new tunnel or across the magnificent long suspension bridge. So will taxicabs.

If you take your own car across it may be searched by the customs officials on your return. Be sure to know the state in which you were born, and whether or not you are a United States citizen. You will be thusly queried by uniformed guardsmen at the exit.

Toll is charged by both bridge and tunnel.

• • •

Automobile Plants

Windsor is to Detroit as stage shows and hotel roofs are to New York, or dine-and-dance gyp joints are to Chicago. It's the entertainment to which the out-of-towner looks forward and without which his trip is as incomplete as White Rock minus an energizer.

Detroit does have, however, a set of staple rubberneck points which correspond, in a fashion of their own, to Coney Island, Chinatown, the Bowery, Grant's Tomb, the Statue of Liberty, and the Empire State building in New York City, or the stockyards and the new World's Fair site in Chicago.

These staples are chiefly the automobile factories, of which the Ford plant at River Rouge is the epitome and the most popular.

Other auto factories which visitors often want to see include those of Chrysler, Lincoln, Cadillac, Packard, Graham, and Hudson.

And of course you know that Kelvinator, Norge, and Universal Cooler electric refrigerators are made in Detroit, and that the Copeland factory at Mt. Clemens is just a few miles away.

Also interesting are the Burroughs Adding Machine Co., the Frederick Stearns Co., and Parke, Davis & Co. The latter two concerns manufacture a considerable portion of the country's pharmaceutical supplies.

Just as visitors to Washington will want to shake hands with the president of the United States, so will uninitiated visitors to Detroit want to shake hands with Henry Ford.

There is a difference, however. Visitors to Washington may shake hands with the president.

Henry Ford, the man who symbolizes the city, is as remote as Tibet or Afghanistan—or the fellow who owes you 10 bucks.

• • •

Skyscrapers

For a place in the sun among skyscrapers Detroit offers the Fisher building. Erected by the Fishers of Fisher Bodies, this unique structure is the first corner of a proposed mighty architectural project.

It has an obelisk tower with a gilded and burnished top which is breath-taking when night falls and the flood lights burst forth upon it.

As one travels either north or south on Second Blvd., this gorgeously illuminated tower arises in the distance as out of the middle of the street. Nothing the Greeks or Babylonians had could match that sight. They didn't have artificial light.

Across the street from the Fisher building is the whopping big General Motors building, which was the largest in the world when it was built; but now is overshadowed by Chicago's Merchandise Mart. Across another street is the Fishers' New Center building.

Downtown, near the river's edge, cluster several tall buildings, monarch of which is the Penobscot building. For grace of proportion and sweep of flowing lines, this skyscraper is classic.

Also worth seeing—chiefly for its bizarre, oriental baroqueness—is the Union Guardian building.

In the Barlum Tower on Cadillac Square is a historical museum which presents exhibits denoting the various racial conquistadors of Detroit—Indian, French, English, and American— together with an exhibit on the military history of Detroit.

Midtown is the massive Masonic Temple, billed as "the greatest monument ever built to the ideal of brotherhood."

Midway between uptown and downtown is the Art Centre, which includes the municipal library and Institute of Art, the Wardell apartments (owned by Fred Wardell, president of the Eureka Vacuum Cleaner Co.), and the Maccabees building, where this is being written.

Both the library and the Institute of Art are said to be of the first architectural magnitude. They face each other. Pondering in front of the Institute of Art is a large replica of Rodin's "The Thinker."

The Maccabees building, of which the Business News Publishing Co. is the largest tenant, has the beauty of simplicity, and boasts a handsome profile.

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Homes

If you have only half an hour to spare, and want to see some lovely homes, drive the short distance from the Fisher building up to Boston Blvd. or Chicago Blvd. Especially in the summer the two streets named above offer enchanting vistas.

With more time on your hands drive east on Jefferson Blvd. until you get out into the Grosse Pointe region, and further. There you will find the Edsel Ford estate, and similar magnificent walled-in mansions and landscaped surroundings.

You won't see anything like this millionaire's row in New York City or Chicago.

Other swanky residential districts may be found out around Palmer Park, Sherwood Forest, Birmingham, and farther north.

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Amusements

Amusements? Ah, yes, amusements. Rubbing of hands and lighting of eyes on the part of the visitor. Mute helplessness on the part of the Detroiter.

What? No night clubs? No place to dine and dance? No girl show extravaganzas? Why, man alive, where does the tired business man go?

The answer is that he goes home—or back to work.

Detroit is preeminently a city of home entertainment. Instead of going OUT for a party, the Detroiter invites friends IN for a party. Commercialized amusements seem to hold few attractions for the city's elite.

Sensible, sophisticated, and quite grown-up is Detroit when it pays for diversion. The very best of current drama plays Detroit almost immediately upon leaving Broadway, or before arriving. Lecturers of the first water, top-flight musicians, traveling exhibitions of art—the best come to Detroit, and are well patronized.

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What? No Dancing?

Institutions are the Detroit Symphony Orchestra and the Detroit Civic Theatre. The former, directed by famed Ossip Gabrilowitsch, draws a brilliantly dressed crowd to its biweekly concerts and also plays a popular concert every Saturday night for the lower income groups.

At the Detroit Civic Theatre is a permanent stock company trained by Miss Jessie Bonstelle. From this stock company have been graduated such cinematic personages as Ann Harding and William Powell. And, believe it or not, Joan Lowell (author of "Cradle of the Deep") has been a member of the company.

There are dozens of movie houses, the best of them sparkling in a mazdaical constellation around Grand Circus Park. The Michigan is a good choice. Uptown in the Fisher building is the ornate Fisher theatre, which is worth going to just to see the splendiferous decorations.

But no place to dance? Right. No place to dance. Unlike New York City, Chicago, Cleveland, or Los Angeles, with their scores of supper clubs and good bands, Detroit has today but one or two spots where one may dine and dance in anything like distinguished fashion.

One is the Everglades Club in the Hotel Tuller, where noted composer Seymour Simons and his orchestra hold forth. The other is the Blue Room of the Book-Cadillac hotel (Johnny Hamp is playing there now).

Others, such as Edgewater Beach and Blossom Heath, are here today, padlocked tomorrow.

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Unique Institution

All up and down Woodward Ave., however, bloom taxi dance halls, which flourish in Detroit as nowhere else. These are the 10-cents-a-dance-partners-furnished emporiums, a few of which may be found in other cities, but which in Detroit have become an institution.

Because of strict police supervision, they are generally quite respectable. Riding down the avenue after nine o'clock at night one's ears are assailed in almost every block by the brassy blares emanating from these halls. Don't stop to listen; the music is almost invariably bad.

One hall, the Arcadia, has lifted itself by its bootstraps into a semblance of elegance and prosperity.

It advertises itself as the "largest ballroom in Michigan," has monstrous indoor and outdoor floors, a pretentious electrical display at the entrance, two bands, four soda fountains, two confectioneries, a clubroom with magazines and card tables, a balcony for spectators, special fashion shows and whatnot.

Catering chiefly to out-of-towners, its "hostesses" get 20 cents a dance instead of the customary 10. From all outward evidence the place is a highly profitable enterprise.

In one corner of this palatial establishment is an open-end room, well upholstered, for parents of the taxi-dancers.

According to the manager, many of these girls are now the sole breadwinners of their respective families.

The girls, selected for beauty and charm, include unemployed stenographers, factory workers, show girls, college graduates, and star performers drafted from the bush league halls down the street.

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Hotels

Best hotels are the Statler, Fort Shelby, and Book-Cadillac. The Fort Shelby has unusually comfortable beds and an excellent coffee shop. It does a rushing business, even in these days, and is said to be making money.

The Statler houses most of the luncheons and dinners given by Detroit business men, and is satisfactory from every point. Manager Pichler is an accommodating and efficient host.

Highest prices and most luxurious quarters are to be found at the Book-Cadillac. It is usually considered the swankiest hostelry in town, but isn't particularly prosperous just now. Ralph Hitz, manager of the Hotel New Yorker, has recently taken the Book-Cadillac under his wing.

Other good hotels include the Detroit-Leland, the Tuller, and the Barlum. If you are staying a few weeks, and aren't trying to economize, your best bet is the New Whittier. Or the Wardell, or the Belcrest.

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Food

Personal nomination for the best food in town—also the best service: the Wardell. Fort Shelby food is good, too; and you won't go wrong at the Statler or Book-Cadillac. Some of the better speakeasies have good cooks and commendable steaks.

Another list-topper is the Green Cottage, on Second Blvd. Small, but excellent home cooking. Its special salads are worth the small price of exit.

Good food can also be had at the Belcrest, the Concourse Cafeteria and L'Aiglon in the Fisher building, the Tuller Oyster Bar, and Frame's Colonial Tea Room.

For Chinese food go to the rather unprepossessing Royal Canton, on Woodward near Grand Circus Park. Good Russian food and atmosphere are provided by the Club Andre just off Grand Circus Park. None of the Italian or Greek restaurants are recommended.

One of the best seafood restaurants is the Sea Food Grotto, on W. Grand River Ave. between Washington Blvd. and Griswold St. And if you have time, take a long run out north on Woodward to Hedge's Wigwam, a unique roadside inn which has one of the smartest food buyers in town and a highly varied menu.

Best open-all-night uptown restaurant is the Puritan Cafe (air conditioned), opposite the Fisher building. Downtown one is as bad as another.

Most adequately stocked open-all-night drug store: Glenn's at Woodward and Charlotte.

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Sports

In season Detroit offers quite a variety of sports. The Detroit Tigers (American League) don't do so well, but sometimes the opponents are worth watching.

Good hockey, boxing, and wrestling are on tap. University of Detroit usually has a good football team, and just an hour's drive away is Ann Arbor, home of the University of Michigan.

In warm months golf, tennis, polo, and aquatic sports are on deck. High point of the sports year is the Annual Harmsworth Trophy speedboat race, in which Detroiter Gar Wood invariably outruns or outsmarts the British entries.

Plenty of public fee golf courses are available.

At Woodward Ave. and Ten Mile Road is the Detroit Zoo, famous the nation over for its natural habitats and unusual collection of interesting fauna. It's a good Sunday afternoon time-whiler.

If you like flying you can go either to the City Airport or the Ford Airport. Both are models. Excellent connections are offered by commercial routes to almost any city which has regular air service.

And don't miss Belle Isle park, which is an 825-acre island in the middle of the Detroit river. With its canals and boulevards, it's all water and macadam and grass and trees.

A lovely fountain, a casino, yacht and boat clubs, gardens, a small zoo, an aquarium, swimming, golf, canoeing, and tennis are among its attractions.

On warm summer nights it is densely populated with the amorous youth of Detroit—a pageant of Young Love's Progress in six colors and 14 languages—really a sight to see. Miles upon miles of closely parked cars, oblivious and undisturbed. An exclusive Detroit feature.

WARNING: If you drive your own car around downtown Detroit, expect to get lost. Everybody does, including longtime residents of the city.

RUARK NAMED SECRETARY OF CHICAGO BURNER MEN

CHICAGO—B. W. Ruark was elected secretary of the Chicago Oil Burner Association to devote time to the organization of a cooperative sales program for Chicago oil burner dealers, at a recent meeting of the association.

You must Sell Refrigerators NEXT Year as well as THIS

An open letter to manufacturers of good electric refrigerators:

"Suppose this year marked the beginning of your refrigerator business. Your salesmen could sell on a basis of newness . . . an interesting mechanical principle . . . time payments, or perhaps a startling guaranty.

"But what will they have to sell in '33, '34, '35—in the future years that really hold the measure of your success as a manufacturer? If they do sell, you may be sure they are selling performance—reputation.

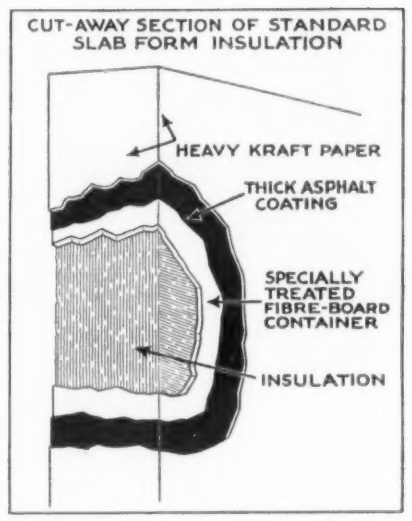
"Failure of a good reputation or utter lack of one has filled the graveyard of the automobile industry with innumerable dead hopes. Nothing could force the sale of cars that had crumbled in the crucible of public opinion. The spoken word—in drawing rooms, in clubs, in street cars, in back yards—may not travel as fast as publications or radio, but it has far more deadly power, either for or against. It has made and unmade more manufacturers than any other force in business life.

"Salesmen and dealers and distributors know this. They drift to the manufacturer who produces quality refrigerators. They bring to him their enthusiasm, their friends, their prospects. And without their combined efforts in his behalf, there can be no success.

"Ask them if this is not so. Ask them if they want merely a refrigerator that is advertised, or one that stays sold—a refrigerator that is made with quality products and workmanship, from frame and compressor to spotless, glistening finish.

"When you have tabulated the answers, remember that Dry-Zero Pliable Slab insulation is an assurance to good manufacturers that their refrigerators will 'stay put.' "

"But my mother has one and it seems to run ALL the time!"



This drawing illustrates the proper method of construction for slab form of insulation, to secure permanence. Unless all precautions shown here are taken, damage from moisture penetration is inevitable.

Facts about Dry-Zero

Dry-Zero is made from the fibres of the huge seed pods of the Ceiba tree growing in Java and the South Sea Islands. Nature designed these fibres to carry seeds for long distances through humid air and tropical showers. To do this it was necessary that they be light and completely resistant to moisture.

By an ingenious process of "graining" the fibres are laid parallel with each other, and at right angles to the line of heat flow. This results in greatly increasing the resistance to heat movement through the minutely uniform batt thus formed.

For use in refrigerators, the Dry-Zero batt is placed in treated fibre-board containers made exactly to fit a specified position in the refrigerator. These sizes are carefully checked by templates to assure perfect fitting, although the flexibility of the slab allows for common irregularities of cabinet construction.

The slabs are completely wrapped in a special Kraft paper which has been thoroughly coated with an asphalt made specifically for Dry-Zero and rolled on under heat and pressure. This results in the Dry-Zero Sealed Slab which has the most perfect vapor seal that has been developed in the insulation industry.

Where cabinet construction permits, the outer Dry-Zero sealing sheet extends beyond all sides of the slab providing the exclusive vapor tight sealing flange.

The U. S. Bureau of Standards has published the conductivities of various insulating materials. In this table the efficiency of Dry-Zero insulation is found to be from 12% to 40% higher than the other refrigerator insulating materials. Bear in mind that these figures are authentic and not the claims of manufacturers.

In other tests, for moisture absorption, notably by Prof. Miller of the University of Minnesota, Dry-Zero has been shown to absorb a far smaller quantity of moisture than any of the other leading materials. Further, as moisture will inevitably penetrate any refrigerator wall in time, it is well to know that it will have practically no effect on Dry-Zero which is unique in this respect.

Its use in thousands of domestic refrigerators, ice cream cabinets, solid CO_2 containers, railroad refrigerator cars and refrigerated trucks over a long period has proved beyond doubt the permanence and dependability of Dry-Zero.

DRY-ZERO CORPORATION
Merchandise Mart - Chicago, Illinois
Canadian Office - 465 Parliament St., Toronto

THE MOST EFFICIENT COMMERCIAL INSULANT KNOWN

DRY·ZERO

37 DEALERS SELECTED BY LEONARD OUTLET

PHILADELPHIA — Thirty-seven new dealers have been selected within the last four months by the Klein Stove Co., distributor of Leonard refrigerators, according to Walter L. Brous, director of electric refrigeration sales for the firm.

Mr. Brous has six territorial men: Louis J. Leinhauser, David M. Crawford, H. Tiley, A. Seidensticker, Mr. Brownback, and S. L. Ricken, who work from the main office at Trenton Ave. and Tioga St.

New Dealers Listed

The new dealers are: I. L. Alderfer, Telford, Pa.; Battin Motor Co., West Chester, Pa.; Boyd Electric Appliance Co., Audubon, N. J.; Bullock & White, Denton, Md.; Capitol Sales Co., Annapolis, Md.; Arthur W. Dowell, Prince Frederick, Md.; Harry T. Ennis, Smyrna, Del.; C. H. Fithian, Elmer, N. J.

Gimbel Bros., Philadelphia; Glatfelter's Garage, Loganville, Pa.; Good & Alexander, Gettysburg, Pa.; Hannum & Waite, Swarthmore, Pa.; Ingram Motor Sales Co., Camden, N. J.; W. W. Jennings Co., Towanda, Pa.; Keystone Motor Car Co., Kingston, Pa.; Krause & Ludwick, Pottstown, Pa.; Kreamer Bros., Annville, Pa.

New Jersey Additions

Leaman Automotive Co., Downingtown, Pa.; C. Eugene Longenecker, Lancaster, Pa.; Ira Megil, Farmingdale, N. J.; W. A. Meyers & Son, East Stroudsburg, Pa.; Miller Bros., Wilmington, Del.; Mock Motor Co., Shamokin, Pa.; Murphy's Garage, Berlin, Md.; Myers Motor Co., Norristown, Pa.; J. J. Oberdorf, Milton, Pa.

Pottsville Automobile Co., Pottsville, Pa.; Harold W. T. Purnell, Georgetown, Del.; Radio Sales & Service Co., Milford, Del.; Clyde F. Sandt Co., Harrisburg, Pa.; Fenton L. Sayre, Pitman, N. J.; Servu Appliance Co., High Bridge, N. J.; Trumbower-Dietrich Motor Co., Bethlehem, Pa.

Value Hardware & Supply Co., Atlantic City, N. J.; Vanneman & Patrick, Salem, N. J.; W. H. Watson, Doylestown, Pa.; Weiler & Co., Egg Harbor, N. J.

OCTOBER POWER OUTPUT UNDER SEPTEMBER BY 1%

WASHINGTON, D. C.—Instead of the normal increase of average daily energy output of public utility power plants to be expected in October, the average output decreased about one per cent, as compared with September. The total output, however, increased 178,000,000 kwh., it is reported by the Geographical Survey.

Compared to 1930, the October total is down 6 per cent, against 3 per cent for September, and 4 per cent for August. The only regional exception to the general shrinkage was in the South Atlantic states, where the output was 1 per cent greater than last year.

The decrease is the largest since February. The output first fell below that of the corresponding month of the preceding year in July of 1930.

Energy generated from water power in October was only 26 per cent of the total amount generated by both water and fuel power. This percentage is the lowest since 1919. The maximum percentage of 46 was reached in May, 1928.

Since there has been an increase of about 40 per cent in the capacity of water wheels installed in public utility power plants since 1926, that capacity could now produce more than four times the output from water power in October. These figures, the survey points out, indicate the effect of the drought, which has continued for about two years.

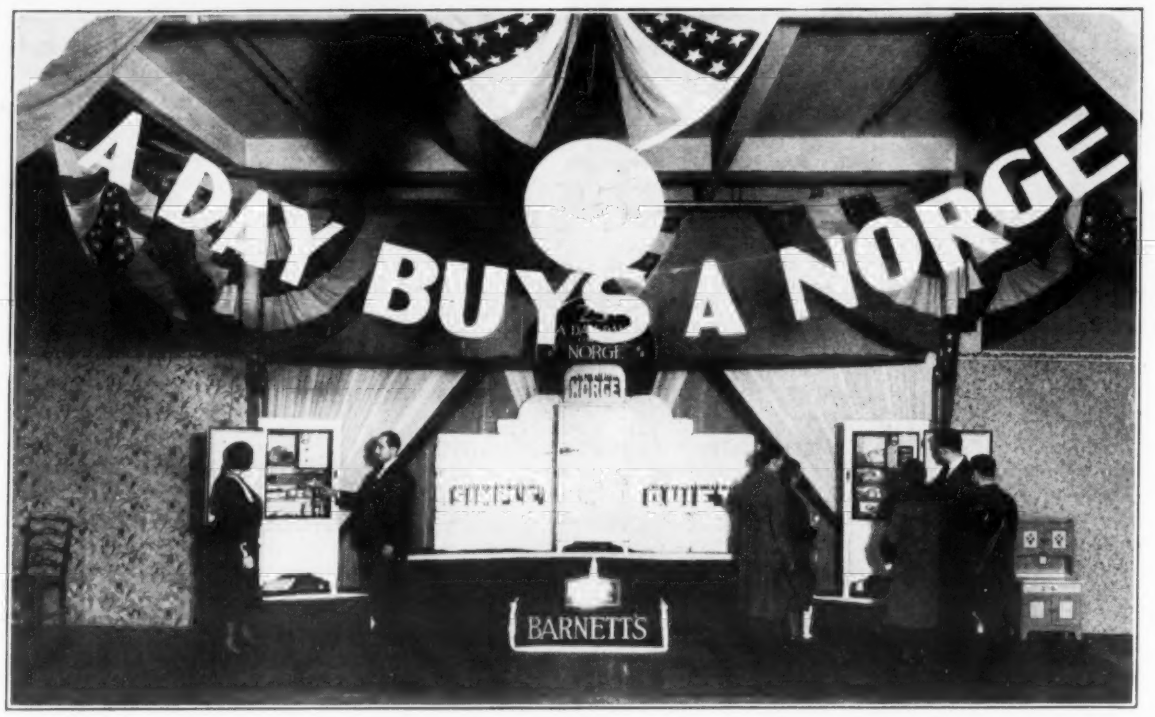
557 MILLION LAMPS SOLD IN '31, G. E. REPORT SHOWS

SCHENECTADY, N. Y.—A preliminary estimate of the number of incandescent lamps sold in the United States during 1931 indicates a total of 557,400,000 for both large and miniature lamps, according to a review of the electrical industry by John Liston in the *General Electric Review* for January.

The quantity included 349,450,000 large lamps with metal filaments, a new high record, and 203,100,000 miniature lamps with metal filaments. There was a drop in the sale of carbon-filament lamps, which accounted for less than one per cent of the total. These lamps included only 4,850,000 large and miniature bulbs, less than one-third the production in the previous year.

In the field of lighting, a number of new types of lamps were produced, some of them developed along conventional lines but others having distinctly new features. Among the latter were a combined mercury-vapor and incandescent lamp unit for use in a windowless factory; new types of neon glow lamps for special applications; and ultra-violet producing lamps which are so designed as to permit their continuous use without transformers on normal lighting circuits.

Refrigeration—25 Cents a Day



The meter plan was the main theme in the display of Norge electric refrigerators by Max Barnett Furniture Co. in the recent New Orleans Home Furnishing Show in the Municipal Auditorium.

How To Get Prospects

As Told By G. E. Evans, Secretary, Detroit Copeland Sales Co.

By Phil B. Redeker

DETROIT—One of the best ways to develop prospects, in the view of Mr. G. E. Evans, sales manager of the Detroit Copeland Sales Co., is to keep the product as a topic of conversation before one's personal and business associates. The avenue of personal connections has led the way to the uncovering of a relatively greater percentage of prospects than any other special method, he believes.

"I have sold a lot of refrigeration by making Copeland products a topic of conversation among my friends," says Mr. Evans in drawing upon personal experience. "This method has brought me hosts of good prospects who had not been personal friends, but who had been intimate with my own friends who were talking the Copeland line."

Like House-to-House Canvass

This belief explains why a great number of the Detroit Copeland's plans and stunts are seemingly not directed to the amassing of great lists of prospects, but are more or less in the nature of general publicity to get those who are prospects, or who will some day be prospects (that is, persons interested in the purchase of refrigeration) to be "Copeland" minded when they start to think about refrigeration.

The house-to-house canvass can't be overestimated as a proposition for locating *good* prospects, Mr. Evans thinks, but for this method to be as great a success as it should be a little headwork is demanded on the salesman's part.

"The trained, thinking refrigerator salesmen will never leave a house to which he has gained access without the names of some prospects within a radius of half a city block," states the Detroit Copeland sales manager.

No Time For 'Suspects'

"If the salesman is making no progress, he can seize the opportunity to divert the conversation to the neighbors, and almost invariably will discover whether or not the neighbor is a prospect in good financial standing. If the salesman is received in a friendly fashion he will have little or no trouble in getting the names of several nearby prospects."

One of the hardest things for a salesman to do is to *forget* prospects, Mr. Evans says.

"A salesman can't afford to spend his time with 'suspects,' and the really smart salesman will be able to classify the prospects as an asset or a waste of time after two calls," Mr. Evans states.

Users of Copeland refrigeration form a vast potential army of prospect-getters and the Copeland organization has developed a well-worked out plan which is gaining results.

Drawn up and sent to each Copeland owner is what is known as the "User's Bond," which is in form very similar to a gold bond, with 10 coupons.

There is room on each coupon for the name and address of one prospect whom the user believes is more than casually interested in refrigeration for his home.

When a sale is made to one of the prospects which the user has named, the latter receives $5, and $5 for every coupon that is "clipped."

"This plan does not create any inconvenience for the user, as we do not request that he allow his name to be used by the salesman, and it has gone a long way towards making up a list of highly eligible prospects for our organization," Mr. Evans states.

"Feed a Family" Tie-up

During the pre-holiday season the Copeland organization tied in with the "feed a family" fund campaign in a manner that brought many prospects into their showrooms.

A direct mail campaign and poster bulletins placed in the showroom windows, in the establishments of commercial users, and in stores where the salesmen trade, advertised the fact that for every sale made before Dec. 24, $5 would be given to the fund or to a family designated by the buyer.

The plan was one of the best devised for getting contact with really good prospects, Mr. Evans discovered.

Police, fire department, and post office employes constitute an important group of prospects, which, if correctly approached, prove a good field for group sales.

Group Purchase Plan

The "correct approach" is to enlist or interest one man in the department to promote the product with the idea of making a group purchase at a slight discount. Here again the personal contact avenue is all-important.

Real estate offices, agents, contractors, and banks and trust companies represent one of the greatest sources of potential prospects that exist at the present time, Mr. Evans says.

"In order to work this field correctly a separate department should be set up which would contact these groups all the time," he points out.

"Banks and trust companies and other similar outfits are getting a great many property repossessions these days, and in order to get their property rented they are forced to equip whole lots of them.

Classification of Builders

"Builders must be classified into two divisions, those who are prospects in themselves, and those who furnish the names of home buyers.

"The former generally buy the refrigerator and other household appliances and then sell to the buyer of the house at a profit. This profit-making type is rapidly going out of the picture, however, and the purchaser now does his own equipment buying. The names of these people, of course, comprise a highly eligible prospect list."

Classified listings of groups such as doctors, lawyers and other professional and business men whose position makes them prima facie prospects for the purchase of refrigerators, are drawn up and direct mail literature sent to the names on these lists for the purposes of keeping Copeland's name before them. These lists also supplement the "choice" prospect file.

At the present time the Detroit Copeland Sales Co. is maintaining a display of refrigerators in the theatres of one of the Detroit movie chains, and is giving away 10 Copeland refrigerators as "door" prizes, but this is more or less a general publicity scheme.

"We are not using this idea to get names of prospects, because a previous attempt brought us hundreds of thousands of names—names of children, apartment house tenants, and homeowners already equipped with refrigeration—and but a very few actual prospects. Our salesmen wasted more time in trying to use such a list than was worth while for the few prospects they uncovered," according to Mr. Evans.

Canvass of Club Women

While they do not employ a regular home service department set-up to develop women prospects, the Detroit Copeland sales group uses direct mail to obtain names from women's clubs and organizations in return for bridge score cards, favors, and the like.

Each of these various methods of uncovering prospects has a vital place in the selling scheme, Mr. Evans points out, but he believes that the one great way in which to create prospects, who will uncover themselves, is to create enough enthusiasm among users and friends so that they will spread the product's name and worth to others who may be interested in the purchase of refrigeration.

GENERAL ELECTRIC DEALER MOVES TO NEW BUILDING

HAMILTON, Ohio.—J. E. Humbach, for three and a half years a General Electric refrigerator dealer, has recently moved into a specially constructed two-story building known as Humbach's Super Service Station.

The entire second floor of the building is devoted to General Electric appliances, and part of the first floor is given over to a refrigerator display.

The exterior of the building is one series of full-length show windows on both the first and second floors, making it possible for passers-by to see the whole display floor from the street. The design of the building gives a modernistic effect.

SON TAKES OVER DEALERSHIP LEFT BY FATHER

FREEHOLD, N. J.—Clifford T. Burke will continue the business left by his father, Frank T. Burke, Copeland dealer here, who died Oct. 11.

This announcement is made by the Benjamin Binder Co., Copeland distributor of Newark, N. J., which supplies the Burke firm. The elder Mr. Burke had been a Copeland dealer since 1925. His son joined the firm in 1929.

BEERY WINS SUPERVISOR'S CONTEST OF FRIGIDAIRE

OAKLAND, Calif.—J. Charles Beery, special representative of the Pollard-Seagrave Co., Ltd., in charge of the Frigidaire sales division, won the $100 prize in the Supervisor's Contest for October and November.

This concern sold 216 per cent of quota during these months and is winding up the year in great shape, with sales well ahead of those of 1930.

DEPARTMENT STORE USES METER CLOCK PLAN

MIAMI, Fla.—Burdine's department store is now handling Frigidaires exclusively, having disposed of the several other lines of electric refrigerators which they had on the floor.

They are using the Mills clock plan of financing a refrigerator purchase, and report that 150 boxes were placed during December.

ELECTRICITY OUTPUT IN KINGDOM GAINS 5%

LONDON, England—The output and consumption of electricity in the United Kingdom continues to increase despite the fact that unemployment in the basic industries grows greater all the time. The cause of this is that the decline in the production of industrial power is offset by increased domestic use, says the eleventh annual report of the Electricity Commission, covering the year ended March 31, 1931.

Statement from Report

"In the difficult circumstances," states the report, "it must be regarded as a satisfactory achievement that the electricity supply industry was able, with the aid of an increasing domestic load, to record a net increase in units generated during the year of upward of 5 per cent."

The principal regions recording decreases were those of northeast England and central Scotland. The commissioners record that there was no general curtailment or even slowing down on development of the electrical industry. On the contrary, transmission and distribution projects were pressed forward for the express purpose of relieving unemployment.

Figures for Four Years

Since 1926, the comparative consumption figures have been in kwh.: 1927, 6,850,000,000; 1928, 7,603,000,000; 1929, 8,596,000,000; 1930, 9,029,000,000.

The aggregate capacity of the generating plant for new stations and extensions of existing stations sanctioned by the commission during 1930-31, amounted to 892,249 kwh. This compares with 292,838 kwh. in 1929-30, and an annual average of upward of 500,000 kwh. during the past 10 years.

130 NEW ENGLAND MEN QUALIFY FOR B.T.U. CLUB

BOSTON, Mass.—One hundred thirty salesmen, nearly twice the number awarded memberships last year, were admitted to the Frigidaire B.t.u. Quota Club from the Frigidaire Corp. New England territory in 1931, according to H. W. Newell, manager of the territory.

The headquarters of the organization was recently moved to the new Frigidaire Bldg., on Blandford St., Mr. Newell points out in his annual New Year's message to members of his sales organization.

During the year 1931 a new manner of organization was made by Mr. Newell. All New England Frigidaire branches were consolidated and since have functioned as a unit from Boston. The organization was then divided into two major groups, one covering Maine, New Hampshire, Vermont, Rhode Island and eastern Massachusetts, the second covering Connecticut and western Massachusetts.

H. A. Valencourt and T. A. Farrell were appointed district sales managers of these two districts, respectively. In the central office, four new departments were created.

L. S. Kimball heads the public utilities department; J. Forrest Cain, the sales planning department; C. H. Arnold, the national users organization, and P. B. Toohey, the ice cream division.

Twenty New England department stores obtained Frigidaire franchises during 1931, and the dealer organization in Greater Boston was enlarged to include 48 new display outlets.

DEALER DRIVE CONSIDERED BY GENERAL MOTORS RADIO

DAYTON—A campaign to expand the present dealer organization was presented by factory executives of the General Motors Radio Corp. at its second annual convention here recently. More dealers on the household receivers and a selective dealer group on the new General Motors car radio will be chosen.

One entire day of the convention was devoted to the new car radio which goes into production this month. It is an eight-tube super-heterodyne with automatic volume control.

The new line of standard and custombilt household models to be presented at the Trade Show in Chicago in May was discussed. Charles T. Lawson, general sales manager acted as chairman, and each department head in the central office and factory appeared on the program.

REGION PROMOTION MANAGER GIVES 2 TRADE TALKS

DAYTON, Ohio—Two addresses before trade organizations have been made by M. A. Spayd, sales promotion manager of the central sales region, Frigidaire Corp., who is designated "good-will ambassador" for his company.

Modern merchandising methods were the basis of his talk before the Dayton Arcade Market Merchants Association, recently. A similar speech was made to Columbus Restaurant Association.

You'll make GREATER PROFITS OVER A LONGER PERIOD with Frigidaire

FIND OUT ABOUT THE FRIGIDAIRE FRANCHISE NOW!

To make money is the big reason why you are in business. The Frigidaire franchise offers dealers a real opportunity to make greater profits over a longer period.

Sales Campaigns that are unusually practical and effective . . . direct mail advertising that has consistently taken first prize in competition with hundreds of other campaigns . . . special radio programs that send hundreds of people right into dealers' showrooms . . . a constant supply of sales-building and prospect-getting material . . . window displays that bring in the passerby . . . these are just a few of the reasons why Frigidaire dealers make more money. *Frigidaire is in business to stay. Frigidaire helps its dealers to sell.*

And remember this. Frigidaire is a known product. It has *proved* its value and dependability to more than two million satisfied users. These people tell their friends about Frigidaire. They, too, help the Frigidaire dealer. And the backing of General Motors not only makes Frigidaire easier to sell, but also gives added prestige to the man holding the Frigidaire franchise.

Mail the coupon now for complete information.

FRIGIDAIRE

A GENERAL MOTORS VALUE

MAIL THIS COUPON FOR FRANCHISE FACTS

FRIGIDAIRE CORPORATION,
Franchise Division, Dept. M-25, Dayton, Ohio.

Gentlemen: Please send me the facts about the Frigidaire Franchise.

Name .....

Business ..... Address .....

City ..... State .....

I 1808

MERCHANDISING SECTION
ELECTRIC REFRIGERATION NEWS
The Business Newspaper of the Refrigeration Industry
Published Every Week by
BUSINESS NEWS PUBLISHING CO.
Also publishers of REFRIGERATED FOOD NEWS (monthly) and the REFRIGERATION DIRECTORY (annual)
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VOL. 6, NO. 19, SERIAL NO. 147, Part 1, JAN. 13, 1932

Editorial Aims of the News

To encourage the development of the art.

To promote ethical practices in the business.

To foster friendly relations throughout the industry.

To provide a clearing house for new methods and ideas.

To broadcast the technical, commercial and personal news of the field.

A Restless Industry

AN ADVERTISING manager of a prominent electric refrigeration manufacturing organization recently told a small group of intimates that if he should happen to lose his present job, he would not seek another in the advertising field; but would attempt to bend his talents toward the selling of electric refrigeration in some capacity or other.

In the group were an engineer with an automotive background, a public relations counsel, an accountant, and an editor. All agreed that the electric refrigeration industry had gained a more tenacious hold on their loyalties and interests than had the professions for which they had been trained.

Evidence appears on all sides to prove that once a man gets into the refrigeration industry and sees its possibilities he can't get it out of his system.

From Company to Company

For various reasons men resign positions with one company. A few weeks or months later they bob up on the payroll of a competitor.

Scores of men in both responsible and minor jobs throughout the industry have been connected with two, three, and four other refrigeration manufacturers during the course of the last several years.

Even more common are the men who have worked for several distributing organizations. The wife of one subscriber to the NEWS recently observed that this was "the travelingest industry" she had ever seen; that their furniture had been in storage for almost three years; and that the only way she and her husband could keep track of their friends in the industry was by reading ELECTRIC REFRIGERATION NEWS.

Also significant was her remark that no matter where they moved, they always found themselves among friends. Others connected with their new organization they had known in another town or had met at conventions and conferences.

Classic Example

Not necessarily is the shifting of men limited to distributor-to-distributor or manufacturer-to-manufacturer, however. The change is occasionally from distributor-to-manufacturer, or vice versa.

A classic instance of such a change occurred at Servel Sales, Inc., in Evansville some time ago. The advertising manager resigned to become a Servel distributor in St. Louis; and the man appointed as his successor was at that time the Frigidaire distributor in Evansville!

Another and more recent example is that of Carl D. Taylor, who resigned his position as manager of the refrigeration department of the Westinghouse Electrical and Mfg. Co. to become vice president and general manager of the Elin Co., Westinghouse distributor in Newark, N. J.

Two Conclusions

Two conclusions may be deduced from noting these frequent changes in personnel of refrigeration organizations, and from observing the men who make the shifts.

One is that good men in this industry are sometimes inclined to be restless, impatient, and independent. They see the opportunity, have their own ideas about the best way to grasp it, and move on to new fields when their pet ideas and theories aren't readily accepted.

Unparalleled Opportunity

The other conclusion is that the electric refrigeration industry holds forth today an almost unparalleled chance for individual progress and development, and that almost anybody with perception and insight who once gets into the industry become unalterably convinced of that chance for progress and development.

This latter conclusion has much to back it up. Beginning with the obvious facts that the market for household electric refrigerators is less than 20 per cent saturated and that public acceptance of electric refrigeration has reached a high point and is still climbing, one can proceed apace through the various possibilities for expansion now dangled in front of the industry, and arrive at the notion that the opportunities to stake out a claim for oneself in this growing industry are almost endless.

Bait for Ambition

Those "various possibilities now dangled in front of the industry" have chiefly to do with the further extension of refrigeration facilities to food.

True, one of the biggest opportunities of all lies in the direction of air conditioning and comfort cooling—a whole new sphere of endeavor which is now taking shape and beginning to break loose from the present rather nebular refrigeration industry.

But most of the present and predicted new developments in refrigeration may be found in that vast field of food handling which separates production from ultimate consumption.

The first applications of mechanical refrigeration to food were the so-called industrial types, which are used at the points of production.

Came next the great wave of household (point of ultimate consumption) refrigeration, which is still mounting.

And today far-sighted executives are predicting that the big developments of coming years will be in the "in-between" commercial field, which embraces the transportation and merchandising of food.

Brains Attracted

Just what is coming, just how far and how fast expansion of the industry will go during the next several years, cannot, of course, be predicted. But many signs point toward a considerable growth, and enough problems have already been stated to challenge every ambitious man who is now connected with the industry.

It has been said that the chief reason for the rapid strides made by the electric refrigeration industry during the last few years is the fact that some of the country's best production and merchandising brains have been attracted to the field.

As a corollary it might be stated that the speed with which the refrigeration industry will move forward in the next few years will depend largely upon the men who are identified with it.

Investment in Future

And since the good men now in the industry seem disposed to stay with it at all costs, plus the fact that every day sees the interest of men in other fields awakened to the possibilities of refrigeration, it well behooves every man in every branch of the industry to put a tremendous amount of effort into his own job and a study of its future.

To those who catch the vision today and hang onto it, a long ride upward is promised.

Letters from Readers

They Like the Idea Of Bound Volumes

Fuller & Smith & Ross, Inc.
1501 Euclid Avenue
Cleveland, Ohio.
Dec. 31, 1931.

Publisher:

We believe that the plan referred to in your letter of Dec. 24 is a very good one and we shall be glad to receive a copy of the bound volumes as long as you carry on the experiment.

W. J. STAAB,
Space Buyer.

The Paul Cornell Company, Inc.
Advertising and Marketing
580 Fifth Ave.
New York, N. Y.
Dec. 28, 1931.

Publisher:

This replies to your form letter of December 24th relative to bound volumes of ELECTRIC REFRIGERATION NEWS and REFRIGERATED FOOD NEWS.

Your November volume came in this morning and we feel confident that it will be very helpful to us. We have nothing but complimentary comments to make on it, and will appreciate it if you will keep us on your mailing list for future volumes.

A. S. BENNETT.

General Electric Company
1635 Broadway
Fort Wayne, Ind.
Dec. 31, 1931.

Publisher:

This is to acknowledge and to thank you for your letter of Dec. 24th. The bound volume containing the November issues of your magazine came in a day or two later and we will be very glad indeed to try the experiment suggested.

It would be very difficult indeed for anyone to slip this volume into his vest pocket and escape detection.

F. M. ORSBORN.

Dyer-Enzinger Co., Inc.
Century Building
Milwaukee, Wis.
Dec. 31, 1931.

Publisher:

We are in receipt of your letter of Dec. 26th, also the bound copy of the November issue which is very interesting to us and convenient to handle.

We will certainly appreciate it if you will put us on your list to receive these bound volumes.

C. A. BROCKER.

J. Walter Thompson Co.
420 Lexington Ave.
New York, N. Y.
Dec. 29, 1931.

Publisher:

We believe that your decision to provide subscribers of ELECTRIC REFRIGERATION NEWS with monthly bound editions, which may be used on reading tables and reception rooms, is a splendid idea. This will undoubtedly increase the reader audience, thereby increasing the advertising effectiveness.

EDWIN G. JACOBI,
Space Buyer.

Contributing

F. T. Burke, Inc.
47 Throckmorton St.
Freehold, N. J.
Dec. 22, 1931.

Editor:

ELECTRIC REFRIGERATION NEWS is contributing a great deal to the industry.

C. T. BURKE.

100% Refrigeration

E. R. Steinkraus
405 Beaver St.
Beaver Dam, Wis.
Dec. 28, 1931.

Editor:

I surely enjoy the NEWS, same being 100 per cent refrigeration in all its branches. Thanks for the offer on the DIRECTORY. Wishing you increased subscriptions in 1932.

E. R. STEINKRAUS.

Above Them All

Beck & Gregg, Hdw. Co.
64 Marietta St., N. W.
Atlanta, Ga.
Jan. 3, 1932.

Editor:

I find more valuable information in the ELECTRIC REFRIGERATION NEWS than in any other trade paper.

HERNDON THOMAS.

Rereads the Stories

Joseph Schwartz
5040 N. Sawyer
Chicago, Ill.
Jan. 6, 1932.

Editor:

I enjoy your NEWS very much and read every page of it; and many times reread some articles.

JOSEPH SCHWARTZ.

Kind Words Dept.

I wish to take this time and opportunity of acknowledging my keen appreciation and interest in your three publications. Having been a subscriber since June 29, 1927, I have watched with keen interest your every issue. My requests have been handled promptly and courteously—W. J. Nickel, Independence, Kan.

Can't afford to be without REFRIGERATION NEWS "the eyes of the industry"—R. E. Eldridge, 100 Irving St., Framingham, Mass.

You have the best paper for the refrigeration industry—C. J. Nagle, Prospect St., Herkimer, N. Y.

Your paper contains many interesting items that are of very much help to us as a Frigidaire dealer—C. E. Britton Co., Inc., by A. Keene Kidder, corner Rumford Ave. and Hancock St., Rumford, Me.

I am instructor in refrigeration at the Greer College and cannot well be without your magazine.—R. P. Sauer, 4747 S. Union Ave., Chicago, Ill.

GLEANINGS

FROM RECENT PERIODICALS

ICE FOR AIR CONDITIONING

MORE money in it for the electric utility. So claim the proponents of ice for air conditioning as opposed to mechanical refrigeration in the same job. They point out that the central station sells 55 kwh. per ton of ice manufactured and then sells 30 kwh. more for melting the same ton of ice in air conditioning. They point out that an ice installation requires no capacity enlargement or revision of service arrangements such as are so often necessary when the load of a single large motor must be taken on in an area where lighting service is the paramount consideration; they point out that because the customer's investment in air conditioning is much less with ice than with mechanical means the field of application will be widened, with consequently greater and more diversified load on the utility system, and they point out that the central station will retain and increase its ice-making load if the ice manufacturer can be convinced that the utility will go along with him in the development of this new field.

These appear to be pretty good reasons why the central-station man should remember that ice is a perfectly practical means for air conditioning and why he should interest himself in that aspect of the subject. Air conditioning is not yet so widely understood and appreciated as a central-station load as it will be a few years from now. And there is more information on its mechanical phase available to the power salesman than there is on the possible use of ice. But the ice industry is busily collecting data, designing equipment and rallying its forces for the invasion of the new field. In this preparation the electric utility industry has a beautiful opportunity to demonstrate a friendliness and an interest that should do much to soothe the injured feelings of the ice manufacturers resulting from the exploitation of domestic electrical refrigeration.—*Electrical World*, Jan. 9, 1932.

5,000 INSPECT ELECTRICAL HOME AT OMAHA

OMAHA, Nebr.—More than 5,000 persons inspected the model electrical home equipped by the Wolfe Co., furnished by the Brandies Stores, and electrically fitted by several Omaha companies, on the day of its opening, according to the Nebraska Power Co.

Mrs. Wayne Marsh, sales manager of the utility company, was active in preparing plans for the equipment of the home.

FRIGIDAIRE DISTRIBUTOR EQUIPS HOSPITAL

WILKES-BARRE, Pa. — Automatic Equipment Co., handling Frigidaire, was awarded the contract for the refrigeration system in the Mental Hospital for the Aged at Retreat, Pa., by the Central Poor district, at a recent meeting here.

The Frigidaire bid for the contract was $11,500, and involves a complete refrigeration system for the main hospital building.

A busy corner of the Westinghouse Display in Higbee's magnificent new store, Cleveland.

Westinghouse

Dual-automatic Refrigeration

STOPS TRAFFIC AT HIGBEE'S

Even Higbee's spacious refrigeration department was blocked — when people came to see the *Dual-automatic* Westinghouse Refrigerator. For the announcement of this new feature drew crowds that exceeded all expectations . . . crowds that remained to inspect the most beautiful refrigerators they had ever seen.

And so it is everywhere that Westinghouse is being displayed. Showroom attendance and buying interest show a marked increase, particularly since the great magazine and newspaper campaigns started telling about this exclusive Dual-automatic Westinghouse.

During 1932 women will search for such outstanding values. In refrigerators, they will find these double values in Westinghouse — and plus-values in the most modern improvements and convenience features.

Westinghouse Dual-automatic offers you a permanent complete line. Backed by a mighty name, supported by complete advertising, promotion, and selling co-operation, the competitively-priced Westinghouse Dual-automatic Refrigerator is sure to make sales history this year.

Write for detailed franchise information — and our "COMPLETE REFRIGERATION SALES PLAN."

WESTINGHOUSE ELECTRIC & MFG. COMPANY
Mansfield, Ohio

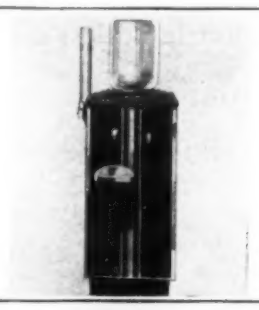
Even the smallest Westinghouse Refrigerators provide all the Dual advantages, including the Built-in Watchman Control and the Selective Temperature Control.

The Westinghouse Refrigerator line is complete, including the larger size models for the more luxurious homes, water coolers and commercial cabinets. All are Dual-automatic, of course.

W WESTINGHOUSE ELECTRIC

Westinghouse

Westinghouse Water Coolers are the most beautiful in the world. Dual-automatic, of course.

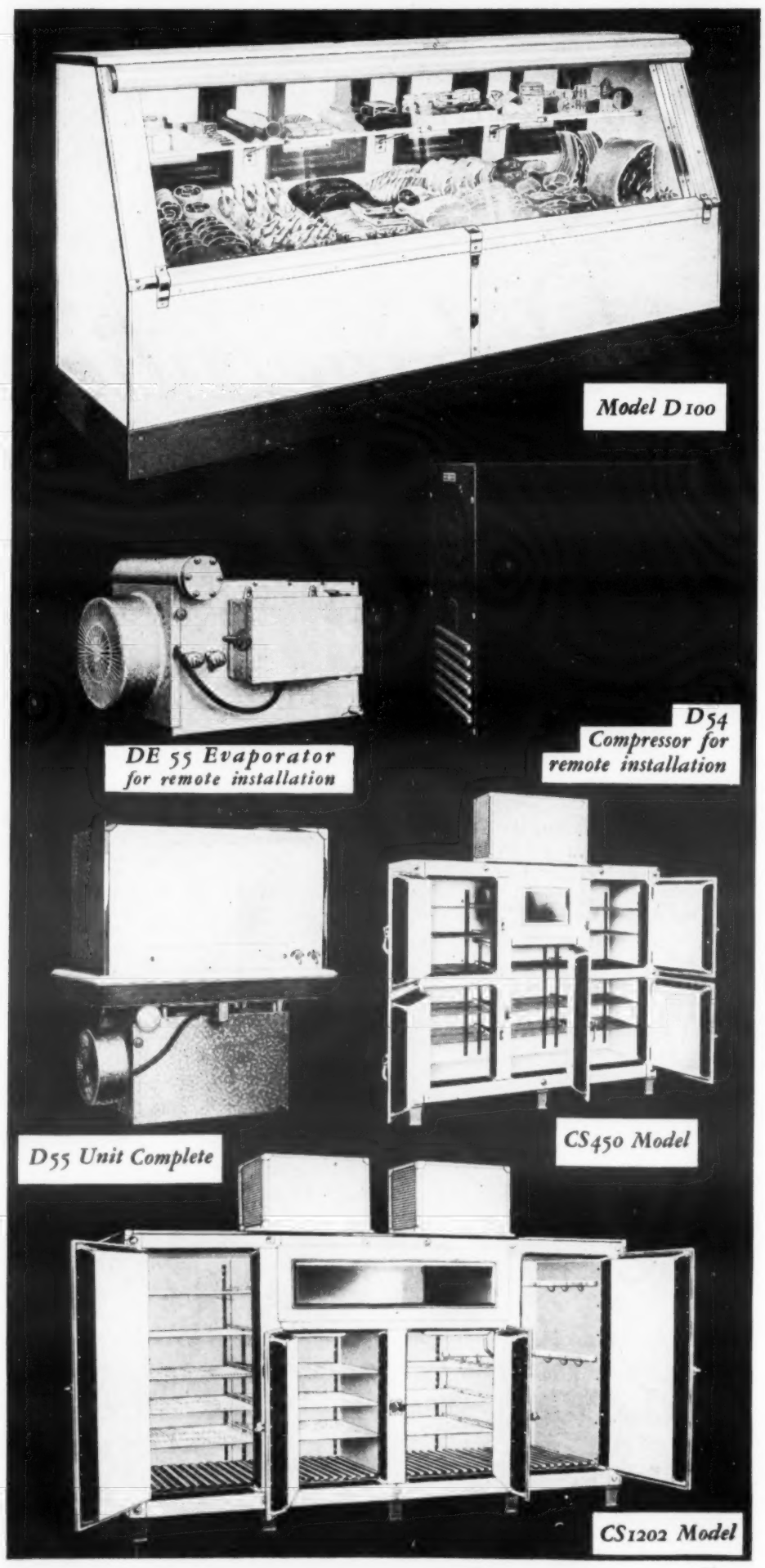


The CMB-4 is the Portable Bottle type, with refrigerated compartment for bottled beverages under lock and key.

Without compartment, Model MB-5. For water line service, Model MT-8, or with refrigerated compartment, Model CMT-4.

The greatest development

CONDITIO
COMMERCIAL RE



Ideal Conditions for Bulk Food Preservation Maintained b
Forced Circulation of Washed Air . . . Temperature of 36° t
40° . . . Relative Humidity of 80% to 85%

● General Electric Conditioned Air Refrigeration has eliminated th tremendous losses in perishable foods due to shrinkage, discoloration, an transfer of food odors occurring with present commercial refrigeration method

Years of research, experiment and test definitely determined the ideal con ditions for preservation of bulk foods. Now, General Electric offers storag and display equipment that set new standards in commercial refrigeration

Proper temperature of from 36° to 40° and relative humidity of 80% to 85%, is constantly maintained. The air in the cabinet is washed five times every minute and circulated by force to every part of the refrigerator. Clean, cold air passes over and around all foods. Once every twelve seconds this air is washed, removing all odors and making it impossible for one food to absorb odor or taste from another. Cheese, butter, meats, fruits and vegetables can be placed side by side without transfer of odor.

Foods are cooled five times faster in Conditioned Air Refrigerators than has ever before been possible. Yet the operating cost is 25% less than in any other method. Shrinkage is cut to but a fraction of the minimum previously achieved. Discoloration, causing waste in trimming is entirely eliminated. "Grade 1" foods stay "Grade 1". It is unnecessary to remove foods from the Conditioned Air Display Case for over-night or week-end storage . . . they will stay fresh for days.

Conditioned Air Refrigeration is now available for stores, meat markets, restaurants, hotels, institutions, etc. Each size and model may be had as a "packaged unit" or for remote installation. All have the famous G-E sealed-in-steel mechanism and carry the General Electric complete three-year guarantee against all service expense.

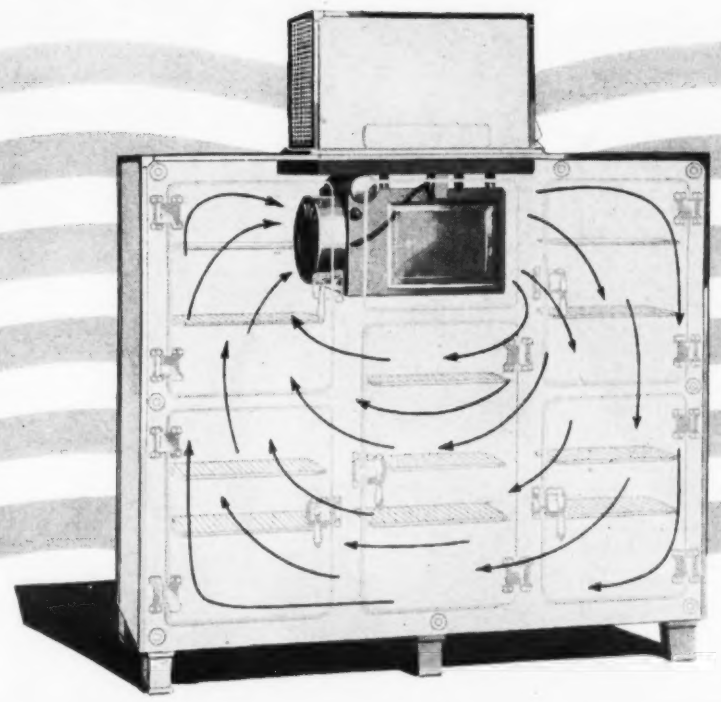
Conditioned Air Commercial Refrigeration opens a vast new field for added net profits to General Electric dealers everywhere.

General Electric Company, Electric Refrigeration Department, Section DF 11, Hanna Building, 1400 Euclid Avenue, Cleveland, Ohio.

PRINT IN BIN

ent in Electric Refrigeration . . .

ONED AIR
EFRIGERATION



- Keeps fresh food fresh for days
- Ends trimming of meats & vegetables
- Cools foods five times as fast
- Costs 25% less to operate . .
- No odor transfer . . . . . .

conditioned air

GENERAL ELECTRIC

COMMERCIAL REFRIGERATION

QUOTA BUSTERS CLUB ENLARGED FOR 1932

MANSFIELD, Ohio — Twenty-seven Westinghouse refrigerator salesmen—the three highest in sales this year from each of the nine Westinghouse districts—will be guests of the company on a trip to Bermuda early in 1933, according to an announcement of plans made by company officials.

The men will be members of the Inner Circle, highest division of the "Circle W. Quota Busters' Club," honorary salesmen's organization named and organized by the nine winners of the 1931 sales campaign at Mansfield recently.

Announcement of the new organization and contest plans for 1932 are being made at the dealer's meetings now being held in the various Westinghouse districts this month.

Western Ranch Background

The Western Ranch idea is the background of the club, with the Circle W as the official brand of the organization. Eligibility for membership is extended to any Westinghouse refrigerator salesman or supervisor working for a distributor or dealer in a retail capacity.

Dealers who act as their own salesmen will be eligible on the same basis as retail salesmen.

To mark various grades of achievements, three classes of membership have been outlined, to be designated as Line Riders, Quota Busters, and Members of the Inner Circle.

To be a line rider a salesman, usually a newcomer in the refrigeration field, sells his quota in any three months of the calendar year. To become a quota buster, the salesman, if he be selling domestic units, must go over his quota of 77 units.

311 Apartment House Quota

If an apartment house salesman, he must "bust" the quota of 311 units; commercial salesmen selling water coolers singly or in lots of four or less to the same buyer, must break a quota of 77 units. Commercial salesmen selling other commercial units must go over the quota of 59 units.

Having become a quota buster, the salesman may also reach the Inner Circle if he sells 125 per cent of his annual quota. For credit in these classifications, installations must be completed on or before the last day of the month for Line Riders, and the last day of the year for the other two classifications.

Line Rider Emblem

Salesmen joining the Westinghouse organization after Jan. 1 have as their annual quota only that proportion of the quota included in their months of service in that year, except those commencing after July 1, who must exceed quota for the entire period from July 1 to Dec. 31.

When a salesman becomes a line rider he will receive an emblem denoting his rank and an announcement of his accomplishment will appear in *Cold Selling Talk*, Westinghouse house organ.

Each Quota Buster will receive a bronze lapel button showing in bas-relief the bronco buster design. His picture and story will be published in *Cold Selling Talk*, and his name will be entered in the Year Book of the Circle W Quota Busters Club. He will receive calling cards bearing the membership emblem, and the official regalia—10-gallon Stetson hat, red bandana handkerchief, and big leather chaps—of the club. The wearing of this regalia is compulsory at convention meetings.

Inner Circle Awards

Each member of the Inner Circle will receive a ring engraved with a record of his accomplishment. Each year the ring will be re-engraved to keep the story complete. A certificate of membership, Inner Circle calling cards, and a gold cord for his Stetson hat will be additional awards, besides the possibility of a trip to Bermuda.

Inner Circle members will be honor guests at the 1933 annual convention to be held a year from this month. Here they will elect officers: the highest man in percentage of quota will be Rancher; second highest, Ranch Superintendent; third high, Ranch Foreman, and fourth high, Ranch Timekeeper.

FRIGIDAIRE CORP. FINISHES ORGANIZING NEW BRANCH

BIRMINGHAM, Ala.—Reorganization of the Domestic Electric Co. has been completed and is now being operated as a factory branch of the Frigidaire Sales Corp. The sales force was expanded last week from three to 25 salesmen and a course in selling was given to these new men.

CHRYSLER BUYS $16,500 G. E. EQUIPMENT

DETROIT — Approximately $16,500 worth of refrigeration has been installed in the three Chrysler Corp. automobile manufacturing plants by Caswell, Inc., General Electric distributor.

A total of seven G. E. commercials and 17 G. E. pressure water coolers is found in the E. Jefferson Ave., West Grand Blvd., and Highland Park plants.

Burns Review of 1931

As a reward to his salesmen who break their annual quota, Judson C. Burns, Philadelphia General Electric distributor, presents the Burns Review, the chorus of the show being shown above.

What They Are Talking About · WOMEN · *What They Are Thinking About*

By Gertrude Stanton

Meet Mr. Halfnelson

The old time-worn expression, "May I speak to the lady of the house," is, many women tell me, the safest, unless the door-to-door salesman knows the name of the prospect on whom he is calling. Even then, there are pitfalls into which the unwary can fall flat on their faces.

A young woman was canvassing homes for the "Madam, have you a vacuum cleaner? What brand do you use? Will you be in the market for a new one? . . ." type of thing not long ago. She had the names of everyone in her section, and knew something about most of the people on whom she was to call.

One was a well-known wrestler. His name was in the paper often, and she had recognized it. She had never seen the man, but hoped to, as he had quite a record behind him. She thought of something over 50 years of age, with battered nose, low forehead, and long gorilla arms. She rang the bell.

A young fella came to the door. He was small, blonde, with little hands and feet. Moved gracefully. He should. Sports writers had called him the fastest man in the 135-lb. class.

"How do you do," she smiled, with the smile that was better than a foot in the door any day. "Is your mother in?"

"No," said Mr. Halfnelson, for as a story would say, it was indeed he, "but my wife is." And all through her talk with Mrs. Halfnelson, she could hear the crack wrestler going off into gales of laughter somewhere in another room, which, of course, helped her poise not at all.

• • •

Bread and Butter

"No thanks," muttered the girl who does not like bread and butter, and the maid moved on with the hot bread. Perhaps no one noticed her. Nevertheless she stiffened for the fray, and took two bites of her fruit cocktail quickly to be prepared for it. Sure enough.

"Well, well, well," said her host genially. "No bread? Don't tell me our little Jeanie is reducing."

"No, I'm not, I just don't like bread," she said brusquely, to shut him off. Her tone only convinced him, however.

"Don't be ashamed of it," he laughed heartily. "All of us reduce at one time or another." The rest of the guests were all looking at her, trying to detect an added ounce on her cheeks.

She thought of shouting, "But I'm not reducing. I really don't like bread. My mother fed me pills all rolled up in bread once and I bit through and tasted the pill. Besides, I'd just as soon eat so much sawdust.

"And while you're about it, I don't like butter either. Once when mother was gone we had a butter-eating contest," but she didn't think it particularly clever table talk.

"But you don't look fat," said the girl at the end of the table, in the comforting voice that meant, "Poor thing, you're falling away to a ton, but I won't let you know I notice it."

"Don't you think so?" asked the girl who does not like bread and butter, and bit a piece of celery, loudly. "I wonder how much a portable scale would cost," she thought. "I'd show them that I haven't gained a pound since I stopped growing. 'Here,' I'd say to her. 'Hold my shoes.'"

"I wish I could gain a few pounds," offered the girl who was much too thin.

"Now they will all start to talk about how much they weigh," thought the girl who does not like bread and butter. "And how they find their breath growing short when they go over just such an amount, and about how they have tried and tried to gain, but they guess it's just a person's nature after all."

"Does heaviness run in your family, Jeanie?" asked someone, just as the maid got round to Jeanie with the rolls again.

"I don't know," said Jeanie, taking a roll resignedly.

"Thaa-t's better," said her host, beaming. "We can't have you starving at our table. You can start reducing tomorrow."

• • •

New Depression Yarn

In one of Detroit's better tea shops one day during the holiday season we were waiting for a table, and the head waitress, with a studied calmness that showed she was all jittery at the unusual crowd, stood us close to a table at which the occupant had almost finished her meal.

She was a matronly woman, well dressed and possessed of a fine dignity. When the waitress brought coffee with her dessert, she also laid three cubes of sugar, individually wrapped, beside the cup.

Not that we were watching every bite the woman took—although we were almost that hungry—but she must have only used one lump, for upon finishing she blandly picked up two lumps and slipped them into her purse.

We did not enjoy our meal—much—for wondering what a woman of that appearance would do with those two lumps. Was she merely of Scotch descent? Had she promised to bring something home from town to the children?

Did she have the type of mind which says, "Well, I paid for it, I might as well take it," and that causes people to break open the rolls served them even though they do not intend to eat them?

Perhaps she only has a hobby of collecting sugar wrappers, as some people collect hotel soap or safety matches.

In any case it was a reminder of the days during the war when each person was apportioned just so much sugar. Dowagers riding in limousines had their little 2-lb. packages with them; coal heavers, sitting dejectedly above their loads, had their 2 lbs. beside them.

• • •

Fashion Note

In keeping with the popular songs, which today are "Sweet and Lovely," instead of "Boo-poo-pah-do," the advertisements for women's dresses are changing. Dresses, we would point out are now gowns. Long and feminine, they are advertised with words like "elegant," or "sophisticated."

During the short skirt era, if you remember, the wisps of material were too scant to be dignified by such terms. Advertising copy writers, chewing their pencils, turned out masterpieces about "clever little frocks," instead of "smart gowns."

And the remnant counter, once more only a source of pillow coverings, or a collar and cuff set, is no longer a happy hunting ground for the woman who makes her own dresses.

• • •

Regular Meals

We were getting a shine one noon in, we maintain, one of the best shoe shine emporiums in Detroit, when the door opened and a man came in. That isn't remarkable in itself, but more remarkable was that on his very heels, in walked a pigeon, taking advantage of the open door.

A bird inside a room is often pathetic, flying about frightened, banging itself against windows, etc. Not this pigeon.

He walked about in a dignified manner, and got in people's way until one of the men spoke sternly to him, then he flew up to the top of a show case.

Finally someone got around to waiting on him, and put a handful of grain on top of a high stool. Down came the pigeon, sat on the edge, and ate his lunch. On finishing, he waited until someone opened the door, then walked out.

There are five pigeons thereabouts, the shoe man said, and they are all very tame.

This is the only bird, however, who comes in daily for his lunch.

Wouldn't you think he'd say to his four pals—perhaps in pidgin English—"Grain served inside, 12 to 1 every day."

17-YEAR-OLD BOY WINS GIBSON CONTEST

CADILLAC, Mich.—One of the winners of a Gibson refrigerator given away at the Butterfield Theatre here during the recent Gibson Joy Month campaign, was Cleo Dunseth, 17 years old, of 512 Stimson St.

SENATOR ASKS RADIO ADVERTISING INQUIRY

WASHINGTON—The extent of commercial advertising over the radio and possible steps to control or eliminate this, as well as the feasibility of government ownership and operation of broadcasting facilities would be covered by a survey proposed in a resolution presented to the senate Jan. 7.

Senator Couzens (Rep.) of Michigan introduced the resolution, which was ordered to lie on the table. The proposed survey would be undertaken by the Federal Radio Commission. The resolution follows:

Senate Resolution

Whereas there is growing dissatisfaction with the present use of radio facilities for purposes of commercial advertising: Be it

Resolved, that the Federal Radio Commission is hereby authorized and instructed to make a survey and to report to the senate on the following questions:

1. What information there is available on the feasibility of government ownership and operation of broadcasting facilities.

2. To what extent the facilities of a representative group of broadcasting stations are used for commercial advertising purposes.

Variance in Power

3. To what extent the use of radio facilities for purposes of commercial advertising varies as between stations having power of 100 watts, 500 watts, 1,000 watts, 5,000 watts, and all in excess of 5,000 watts.

4. What plans might be adopted to reduce, to limit, to control and perhaps to eliminate the use of radio facilities for commercial advertising purposes.

5. What rules or regulations have been adopted by other countries to control or to eliminate the use of radio facilities for commercial advertising purposes.

6. Whether it would be practicable and satisfactory to permit only the announcement of sponsorship of programs by persons or corporations.

7. Any information available concerning the investments and the net income of a number of representative broadcasting companies or stations.

PATTERSON MOVES DEALER MEET TO ST. PETERSBURG

ST. PETERSBURG—Change of location from Miami to St. Petersburg of the George Patterson, Inc., spring dealer meeting was announced Jan. 4 by the sales promotion division. The General Electric distributor changed the meeting place to provide a more centralized location.

An announcement of the complete new General Electric commercial line will be made at the meeting by a group of commercial engineers from the factory, the distributor states.

3 MASSACHUSETTS DAIRIES BUY FRIGIDAIRE SYSTEMS

GREAT BARRINGTON, Mass—Three dairies in this vicinity recently have installed new Frigidaire systems, sold by L. R. Swaetland, Inc., of Pittsfield.

J. A. Fitzpatrick has put in an FW-4100 compressor and a DX-1866 coil with brine tank. J. W. Noonan has put in an FA-5150 compressor and a DX-1866 coil with walk-in cooler and brine tank. Leo Kaplan has installed an FW-475 compressor in conjunction with a 14-can vat.

FIVE FLORIDA G. E. DEALERS SURPASS QUOTA

ST. PETERSBURG, Fla.—Five dealers in the central zone of the territory covered by George Patterson, Inc., were all over 100 per cent in quota of sales for 1931 on Dec. 24, according to the sales supervisor of the zone.

The dealers were: Ralph Dewberry, Inc.; Pearson & Moffett, Inc.; Tampa Electric Co., Polk County division; Hill & Co.; Tampa Electric Co., Plant City division.

MARKET OWNER INSTALLS FRIGIDAIRE UNITS

ADAMS, Mass.—Raymond Benz has equipped his Park Street Market with Frigidaire units. Included in the outfit are two FW-4100 compressors, two DX-1854 coils, two DX-45104 coils, two DX-4880 coils and one DX-1556 coil. The installations were made by L. R. Swaetland, Inc., of Pittsfield.

IOWA MARKET BUYS FRIGIDAIRE

DUBUQUE, Iowa—The new Bluff Side market, 317 W. Eighth St., owned and operated by C. J. O'Hearn, has been opened for business with Frigidaire equipment throughout.

New CABINET MODELS FOR «19 32»

As usual, Seeger is the first to produce a line of medium priced Cabinets in strictly modern design. The only deviation from the straight plane is the essential door handle. This controls a smooth and easy working lock which allows door to close with slightest touch, and only a very little pull opens it.

The continuous hinge, a development of Seeger Engineers for use on Electrical Refrigeration Cabinets has proven a remarkable success and sales builder for the DeLuxe Line, and is now offered in this line of Cabinets in All Porcelain, and in Lacquer Exteriors with Porcelain interiors. Attention is called to the unusual large storage arrangement.

Illustrations show low side cooling unit with porcelain front. This is for appearance only, as the units are furnished by those supplying the Electrical Machine Equipment, and not by the Seeger Refrigerator Company.

BY

Seeger

SEEGER REFRIGERATOR COMPANY

SAINT PAUL, MINNESOTA

232 Fourth Ave.
Fourth Ave. at 19th St.
NEW YORK, N. Y.

644 Beacon Street
Kenmore Square
BOSTON, MASS.

655-57 So. LaBrea Ave.
LOS ANGELES, CAL.

666 North Wabash
CHICAGO, ILL.

4 ADDITIONS MADE BY ELIN IN PHILADELPHIA

PHILADELPHIA—Four additions to the personnel of the Elin Co., Philadelphia, distributor of Westinghouse electric refrigerators, have been announced following the appointment of Carl D. Taylor as new vice president and general manager.

Three men come with Mr. Taylor from Westinghouse at Mansfield. E. R. Lovegren, formerly sales manager for Zerozone in Chicago, becomes wholesale sales manager for Elin. P. T. Hackett, formerly provincial sales manager for J. J. Pocock, Frigidaire distributor, Philadelphia, becomes sales promotion manager for Elin.

Sorenson Has Public Utilities

S. W. Sorensen, formerly with the General Electric Co.'s refrigeration department in Madison, Wis., will have charge of Elin's public utility relations. This is a newly created position. All these men were more recently members of the Westinghouse refrigeration retail sales department.

A new service manager also comes to the distributor: J. A. Paulson of Tenafly, N. J. Mr. Paulson was formerly associated with Servel.

Webb Heads Retail Sales

W. I. Webb continues as retail sales manager for Philadelphia. Robert F. Friedel, vice president and general manager for Elin at Newark, N. J., and who had been operating in Philadelphia also, now will devote his entire time to the Newark branch.

Douglas Lenfestey, who had been operating in both Philadelphia and Newark as sales promotion manager, hereafter will concentrate on the Newark field.

Increases in the Philadelphia territory sales force and sales promotion department will also be made.

Frigidaire Moves Yard for House

NEW ORLEANS — The local Frigidaire sales organization got a house for a yard in a recent transaction.

D. D. F. Yard, local district manager, has been transferred to Atlanta, and D. M. House of Atlanta has taken the place of Mr. Yard as district sales manager with headquarters here.

EXHIBIT SPACE FOR OIL BURNER DISPLAY ON SALE

BOSTON, Mass.—Sale of exhibit space to manufacturers and associate members of the American Oil Burner Association for the ninth annual convention and oil burner show to be held here April 11 to 16, is now under way.

Certain sections of the hall will be available for live burner exhibits, officials announce. The exhibit floor, triangular in shape, contains 115 display booths, most of which are 11x12 ft.

Each booth will be supplied with a uniform sign bearing the name of the exhibitor, address, and booth number. Walls will be in two tones of brown. Exhibits must be ready for display by noon, April 11.

The association announces that 110-volt direct current, and a limited supply of single phase 110-volt, 60-cycle alternating current will be available in the hall.

WATER COOLER SOLD

LAKE CITY, Fla.—Sale of a model DB-1 General Electric bottle water cooler is reported by the Gray Electric Co. here. Sale was made to a fruit juice stand in Live Oak.

ELECTRICITY OUTPUT IN NOVEMBER OFF 1%

WASHINGTON, D. C.—The average daily production of electricity for public use in the United States for November was 246,100,000 k.w.h., about one per cent less than daily October output.

This information is shown in a report issued by the coal division, Bureau of Mines, Department of Commerce, and the Department of the Interior. The report mentions that the output as published by the N. E. L. A. and *Electrical World* includes the output of central stations only. The governmnet report gives the output on a 100 per cent basis, estimating the output for those plants which do not submit reports.

Total production of electricity for public use in the United States in 1931, as estimated from the production from January to November, is about 91,650,000,000 k.w.h., about 4.5 per cent less than that for 1930.

Production in 1930 was 1.5 less than in 1929. Production of electricity by water power in 1927 was practically the same as in 1931, but in 1931 the capacity of water wheels in public utility power plants was about one-third more than in 1927.

These figures, the report states, indicate in a general way the effect of the drought on the production of electricity by water power plants. It is noted, however, that in spite of drought conditions during 1931 the production of electricity by water power was still about one-third of the total output.

HANDLES WAGNER ACCOUNT

ST. LOUIS—Russell T. Gray, Inc., has been selected to handle the advertising account of the Wagner Electric Co., 6400 Plymouth Ave., for this year, according to announcement from the Wagner Co.

General Electric Unit Placed in Bathtub

YORK, Pa.—Even with no place to put it except the bathtub, a customer of the N. K. Ovalle, Inc., branch here, thought he needed an electric refrigerator so much that he had a General Electric refrigerator installed in the bathtub.

His home is in an apartment hotel with a living room, bedroom, and two bathrooms, but no kitchen. The installation was made in the extra bathtub, on a wooden platform erected for the purpose. The legs of the refrigerator were removed.

The sale was made by H. A. Blaebaum.

GENERAL FOODS SECURES ALL STOCK OF SUBSIDIARY

NEW YORK CITY—News that the Goldman Sachs Trading Corp. had recently disposed of its 49 per cent interest in the Frosted Foods Co. to General Foods Corp. was contained Jan. 5 in a General Foods statement.

Now holding 100 per cent control, General Foods stated that the activities of Frosted Foods would be expanded as rapidly as possible this year. More than 200 retail stores in the East are already handling Frosted Foods products, it was said.

Six plants have been established, which will provide facilities for the quick-freezing of products under the Birdseye process. The new plants are in Gloucester, Mass.; Hillsboro, Ore.; Butte, Mont.; Halifax, N. S., and two plants in Boston. Nearly 100 products are being frozen under this process.

At the close of 1930 the Goldman Sachs organization carried its interest in Frosted Foods at $1,054,620.

COLLINS HANDLES RANGE SALES FOR HARRISON CO.

NEWARK, N. J.—D. B. Collins has been placed in charge of Hotpoint range sales by Philip H. Harrison & Co., General Electric refrigerator distributor, according to T. E. Babson, sales promotion manager.

Mr. Collins was the first salesman to join the Harrison Co. on General Electric refrigerators. More recently he has been a field representative.

The company has also retained Miss Alice Wood, formerly a teacher of home economics at Rothenburg Junior High School, Cincinnati, to demonstrate ranges and lecture on electric cookery. Mrs. Helene T. Foster will continue as home economics specialist on refrigerators.

A model kitchen for the display and demonstration of ranges and refrigerators will be installed in the company's East Orange showroom.

MAYFLOWER DISTRIBUTOR ADDS APPLIANCE LINE

PHILADELPHIA, Pa.—Philadelphia Distributors, Inc., distributing Mayflower electric refrigerators and Fada radios, has added Hammond Electric Clocks and Samson electrical appliances to its line.

In informing its dealers of the new products to be distributed, the concern said, "Experience dictates that a retail installment business should be supplemented by a volume of cash business sufficient to carry fixed overhead. Cash items also bring customers to your store which gives you an opportunity of selling them other merchandise."

Both lines, the dealers were informed, could be stocked complete for approximately a $100 investment. Sales on Samson appliances doubled during 1931, and according to the distributor, approximately two thirds of all electric clocks sold are Hammond clocks.

FRIGIDAIRE BRANCH HOLDS DEALER CAMPAIGN

BIRMINGHAM, Ala.—A drive for new dealers throughout the state of Alabama is being launched as one of the activities of the Frigidaire Sales Corp.'s Birmingham branch for 1932.

Present plan of the branch is to bring the list of dealers to around 70 for the state, according to O. C. Endress, who is in charge of the branch here.

Salesmen are also being trained at the offices here for a canvassing campaign to include every section of Alabama, particularly the small towns.

The sales force has been increased from three to 25 salesmen, Endress said.

FORMER AMBASSADOR BUYS TWO G. E. UNITS

CORNING, N. Y.—Alanson B. Houghton, former United States ambassador to the Court of St. James and to Germany, has equipped his home here with two General Electric refrigerators, sold by the A. F. Williams Hardware Co. Mr. Houghton is president of the Corning Glass Works.

REGION HEADS SEEK PRIZES IN CONTEST

NEW YORK—With a third of the duration of the Half Century Contest over, regional and state directors of electric refrigeration bureaus throughout the country are already fighting for the prizes offered.

Reports from Electric Refrigeration Bureau headquarters state that C. L. Law of New York and W. C. Bell of Massachusetts are the leaders thus far in the contest among state directors.

The Half Century Contest, named in honor. of the 50th anniversary of the electrical industry this year, extends from Nov. 2, 1931, to April 30, and consists of competition in three fields: that of regional directors, state directors, and local bureaus.

To Receive Cup

The regional director whose territory during the contest period shows the greatest relative and constructive progress in bureau activities will be awarded the Electric Refrigeration Half Century Cup. This award, like the others, will be made at a general N. E. L. A. convention in June, by the president of the National Electric Light Association.

Judges are the members of the executive committee of the Electric Refrigeration Bureau or any smaller number of members to which the chairman may wish to assign this duty. In judging the regional directors' contest they will take into account which region has accomplished most within the scope of its possibilities as follows:

Points Considered by Judges

Number of local bureaus established; their activities as reported to headquarters; extent of the employment of Electric Refrigeration Bureau promotional and advertising materials; unusual or spectacular advertising found effective; reports of actual sales; unique sales methods; harmonious sales and cooperation between central stations and retail outlets.

Details as to time payments employed; extent to which local bureaus have appropriated and used an annual budget of not less than $2 per refrigerator of anticipated sales as based on a sales quota of 5 per cent of domestic customers; general cooperation with headquarters, and assistance in supplying news and reports.

Award to State Director

To the state director who wins on the same set of points of progress, the Davidson Half Century Cup will be awarded by Mr. James E. Davidson at the N. E. L. A. convention. Relative possibilities of accomplishment will also be considered.

The contest among local electric refrigeration bureaus will end in the award of the Half Century Prize Cup and a cash award to cover the winning president or chairman's transportation and expenses in attending the N. E. L. A. convention. The award will be made there by his regional director.

Other Prizes Offered

Electric leagues or clubs performing the local duties of a bureau will be eligible to this contest, in which the judges will consider much the same set of points as will influence them in the regional contest.

The regional directors standing second, third, and fourth in their contest will receive choice of six original paintings to be used in the national magazine advertisments of the Electric Refrigeration Bureau during the first six months of 1932.

The paintings, by a well-known commercial artist, were purchased at a cost of $1,000 each, and contain no advertising or other matter to detract from the painting itself. The other three paintings left after the regional winners have chosen from them, will be awarded to the state directors who stood second, third and fourth in their contest.

New local bureaus formed not later than Feb. 1 will be eligible to compete, it has been reported from Electric Refrigeration Bureau headquarters.

10 DEALERS COOPERATE IN LAFAYETTE SHOW

LAFAYETTE, Ind.—During the greater part of the month of December the sales floor of the Public Service Co. of Indiana here was devoted to a display of electric refrigerators in which 10 dealers cooperated.

With the public service company contributing 60 inches of general promotional copy, the various dealers, along with others in the city, combined in a double-page advertising spread in the *Lafayette Journal and Courier* in the issues of Dec. 3 and 10.

Refrigerators represented in the exhibit or advertising, or both, were Frigidaire, Westinghouse, General Electric, Kelvinator, Copeland, Majestic, Mayflower, Norge, Coldspot, and Trukold.

ADDS NORGE LINE

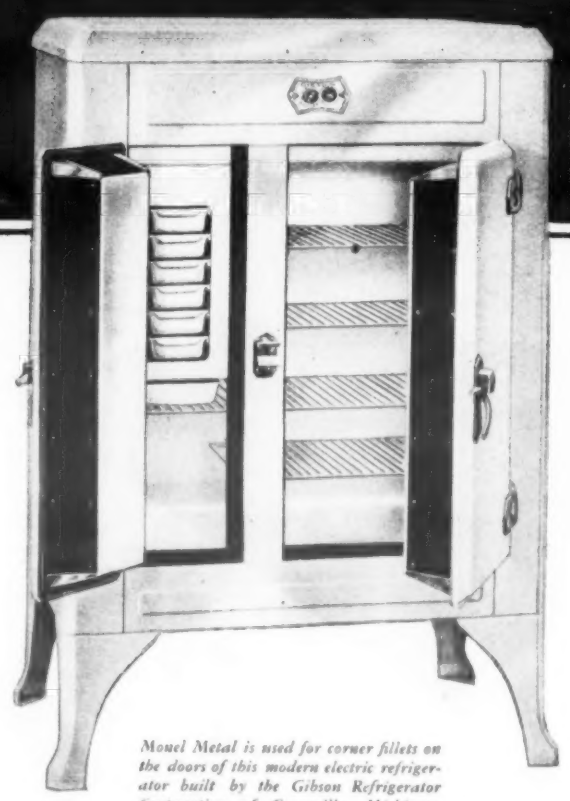
TULSA, Okla.—The Brown Electric Co., of this city, has added the Norge refrigerator line to its sales.

Gibson shows how

MONEL METAL door trim

makes good refrigerators

BETTER



Monel Metal is used for corner fillets on the doors of this modern electric refrigerator built by the Gibson Refrigerator Corporation of Greenville, Michigan.

● In household refrigerators as in the commercial type, there are many places where Monel Metal can be used to improve the appearance, safeguard the cleanliness and prolong the life of the equipment. Door fillets and jambs, for instance. Here Monel Metal provides a permanent silvery surface that will last as long as the cabinet. This modern Nickel alloy is absolutely rust-proof and solid all the way through. In addition, it can be easily fabricated and buffed.

● Since Monel Metal is universally used for trim, and other brightwork of commercial refrigerating equipment, it is not surprising that Gibson and other leading manufacturers should adopt this most modern of white metals for household refrigerators.

● Monel Metal is being consistently advertised for household applications in The Saturday Evening Post, Good Housekeeping, House and Garden and House Beautiful. All this publicity is of distinct advantage to you as it acquaints the public with the advantages of Monel Metal and creates a ready acceptance for products utilizing it. Take advantage of this extensive advertising program by incorporating Monel Metal into your products. Write us for complete details on Monel Metal and publicity behind it.

Monel Metal is a registered trade mark applied to a technically controlled nickel-copper alloy of high nickel content. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

A HIGH NICKEL ALLOY

MONEL METAL

NICKEL ALLOYS LOOK BETTER LONGER

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

EUREKA DISCONTINUES 350 BRANCH OUTLETS

DETROIT—Discontinuance of its 350 branches and sub-branches, and adoption of a retail sales policy straight from the factory has been announced by Fred Wardell, president of the Eureka Vacuum Cleaner Co.

Except for one distributor, the Platt Music Co., Los Angeles, recently appointed for the California territory, the company will sell direct to department stores and electric light companies.

The company's door-to-door salesmen, heretofore operating from the branches and sub-branches, are being retained and will be under factory supervision.

Eureka will furnish the salesmen for the stores, and the stores will provide display and warehouse space, and will handle collections.

With the elimination of the overhead of branches, the company expects the plan to result in substantial savings.

The sales reorganization was started about three months ago to reduce expenses in meeting a decline in sales volume from $12,780,000 in the peak year, 1927, to $6,971,000 in 1930 and a probable volume of $4,500,000 in 1931. Although the company reported a net loss of $313,582 in the first half of the year, November operations about broke even, and December's were expected to show a profit.

SUMMERHEAT CORP. BUYS LINE OF PORTABLE UNITS

DOWAGIAC, Mich.—Purchase of a line of portable electric refrigerators from the American Foundry Equipment Co., Mishawaka, Mich., has been announced by George K. Culp, president of the Summerheat Corp. of America.

The announcement ends several months' negotiations during which the Mishawaka firm received bids on its refrigerator and ice machine division.

The new product is known as the American Ace ice machine, and has been developed by the American Foundry Equipment Co. to the extent of an expenditure of $100,000.

According to Mr. Culp, the Summerheat Corp. will enter the domestic refrigeration field with a portable refrigerator unit for homes, plans for which are already under way.

The removal of machinery and equipment to the Dowagiac plant is now in process.

VERMONT BUREAU SELLS 101% OF QUOTA IN 1931

BARRE, Vt.—The local Electric Refrigeration Bureau led the state bureau sales contest which closed Dec. 31 with 169.3 per cent of quota, or 254 units sold, it has been announced following the compilation of final results. The state bureau reported a record of 101.3 per cent of quota for Vermont.

The Bennington bureau was second, with 152.8 per cent of quota sold. Other standings were in the following order: Montpelier, 134.6 per cent; Burlington, 121.9 per cent; Brattleboro, 113.2 per cent; Middlebury, 107.9 per cent.

West River Junction, 95.8 per cent; Newport, 95.5 per cent; Springfield, 94.4 per cent; St. Johnsbury, 82.3 per cent; Bellows Falls, 77.2 per cent; Woodstock, 68.6 per cent; Rutland, 66.8 per cent; St. Albans, 64.9 per cent.

The total number of units sold by companies affiliated with these electric refrigeration bureaus throughout Vermont was 2,883.

WRIGHT NAMED MANAGER OF CLEVELAND FRIGIDAIRE

CLEVELAND, Ohio—W. G. Wright of the Cincinnati Frigidaire organization has been appointed district manager in charge of the Cleveland Frigidaire Sales Corp., according to recent announcements.

E. C. Hill has been appointed manager of the retail sales in the metropolitan area. H. G. Bowman, who was in charge of commercial sales, has resigned to enter business for himself in another line, and his successor has not yet been named.

R. D. Russell has been placed in charge of five new retail stores which will be opened by Frigidaire in the Greater Cleveland district. Each store manager will have 15 salesmen under him. The stores are being furnished by Sterling & Welch Co., a department store handling Frigidaire.

SERVEL SALESMAN GETS ORDER FOR 13 MACHINES

WASHINGTON, D. C.—An order for 13 of the 21 refrigerating machines to be installed in the new Center Market was obtained by T. B. Moates, salesman for Servel Distributors, Inc., here.

The Center Market was opened early this year with fruit, vegetable, meat and bakery-delicatessen dealers occupying its booths.

Applications of the machines sold by Mr. Moates range from storage refrigerators to bakery and counter cases.

Sparton's Front Line

Capt. William Sparks, president (left); Harry G. Sparks, vice president in charge of sales (center), and Earl R. Brower, sales manager of refrigeration division of Sparks-Withington Co., Jackson, Mich., introduce new Sparton electric refrigerator.

BOGART TO DISPLAY G. E. LINE AT TOLEDO EXHIBIT

TOLEDO, Ohio—The H. G. Bogart Co., General Electric refrigerator distributor, and since Jan. 1 distributor of the Hotpoint electric range, will have an exhibit of both products at the Toledo Automobile Show beginning Jan. 16 in the Auditorium.

The annual spring convention of the company, which covers parts of Ohio, Indiana, and Michigan, will be held in the Chamber of Commerce Hall, Ft. Wayne, Ind., on March 2, according to H. G. Bogart, Jr.

The new range department will be managed by W. H. Webb, who has been with the Hotpoint organization in Chicago for a number of years.

Another new appointment is that of V. B. Hilbert, who will take charge of sales promotion at the main office. Four men, selling both refrigerators and ranges, will contact wholesale outlets. The greater part of the company's wholesale business, according to Mr. Bogart, is done through public utilities.

A home service department is being opened by the distributor as a part of the 1932 program. The name of the woman to be in charge will be announced by the company shortly.

HOOK URGES PURCHASE OF LUXURIES AS SELLING AID

CINCINNATI, Ohio—"If everyone who needs and can buy a new automobile, a new radio, a new refrigerator, or a new anything, and will do so, the increased prosperity from such a concerted movement will more than pay each one of us individually for that purchase and will place us well on the road to business recovery."

That was the statement made by Charles R. Hook, president of the American Rolling Mill Co., in a talk on the Armco Iron Master program, Jan. 4.

Mr. Hook emphasized the automobile item, since "the manufacture of no other article involves activity in so many different industries and affects so great a number of workers."

PARKS & HULL ADDS TO TERRITORY IN BALTIMORE

BALTIMORE, Md.—Additional territory has been added to that covered by Parks & Hull, Inc., 1031 Cathedral St., distributor for Westinghouse refrigerators, according to S. Gordon T. Parks, president.

The new territory includes most of Maryland, parts of West Virginia, and of Virginia.

Bernard S. Gibson, formerly of the wholesale division of the Westinghouse electric refrigeration department, Philadelphia, is now in charge of the Parks & Hull wholesale operation.

In company with Bernard W. Carle, manager of the Parks & Hull refrigeration division, he is now traveling through the new territory contacting prospective dealers.

EIGHT MAKES DISPLAYED IN CONNECTICUT SHOW

MIDDLETOWN, Conn., Jan. 11.—Eight makes of domestic electric refrigeration equipment are being exhibited in a special section at the Middletown Home Progress Exposition being held at the State Armory this week.

Exhibitors and the makes on display are: Connecticut Power Co., Frigidaire; Modern Home Utilities, Inc., General Electric; Schaeffer Electric Co., Kelvinator; Blau's Electric Shop, Inc., Majestic; Hall's Music & Utilities, Norge; Red Wing Oil Heating Co., Ice-O-Matic; James H. Bunce Co., Westinghouse, and Sears, Roebuck & Co., Coldspot.

International Nickel Co. Makes 2 Promotions

NEW YORK—Two promotions in the technical staff of the International Nickel Co., Inc., were announced Dec. 31 by A. J. Wadhams, manager of the development and research department of the company.

T. H. Wickenden, since 1922 in charge of the company's development work in automotive and aeronautical fields, has been appointed assistant manager of development and research. He is a graduate of the University of Michigan, and has been metallurgist and engineer with both the Studebaker and Chrysler companies.

H. J. French, since 1929 a member of the company's research staff at Bayonne, N. J., has been transferred to the development and research department here for research in steel and iron. He is a graduate of the Columbia School of Mines, and was senior metallurgist at the U. S. Bureau of Standards before joining International Nickel.

In 1930 he was awarded the Henry M. Howe Medal of the American Society for Steel Treating.

LOUISVILLE COUNCIL CONSIDERS NEW CODE

LOUISVILLE, Ky.—An electrical code and an ordinance regulating the sale of electrical appliances and supplies are now before the Board of Aldermen of Louisville.

The ordinance requires that all dealers selling any kind of electrical appliances, equipment or materials secure a permit by which they are authorized to sell "approved" articles only. To be approved, appliances and materials must meet standards of the Underwriters' Laboratories, Inc., maintained by the National Board of Underwriters.

The electrical inspector will be required to inspect merchandise offered for sale, or as premiums, by dealers, and violation of the accepted standards may be punished with a fine. A fee of $5 will be charged for the permit, according to the proposed ordinance. This may be renewed annually at a cost of $1.

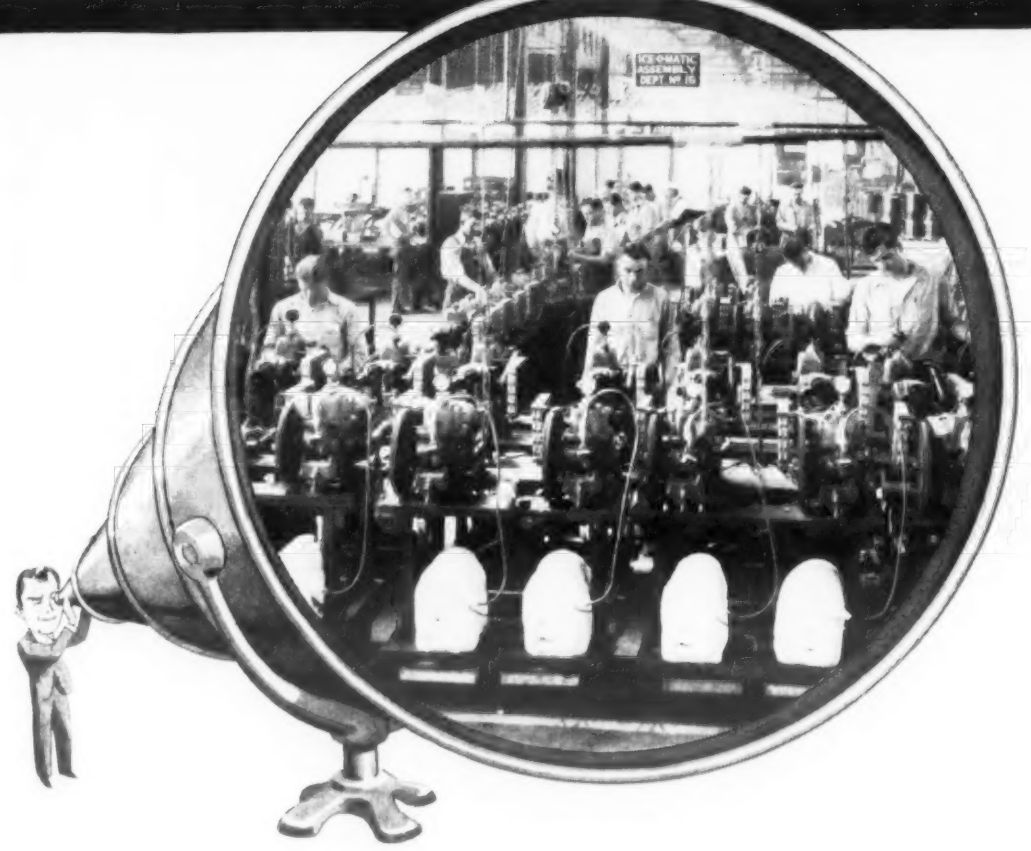
By the electrical code, a Board of Electrical Control is proposed, whose duty it will be to appoint an electrical inspector to issue permits to install electric wiring. The board will also amend and revise the electrical code.

Four members will serve on the board: a supervising electrician, a journeyman electrician, a representative of the Kentucky Actuarial Bureau and a representative of a public service company, besides the chief electrical inspector, who will serve ex-officio.

HOLGERSON JOINS STAFF OF DISTRIBUTOR

NEW ORLEANS, La.—Ralph Holgerson, formerly with Westinghouse at Mansfield, has become sales manager of the Electrical Refrigeration Co., distributor of Westinghouse refrigerators in this territory.

Look ahead!



Mr. Distributor and Dealer, before you line up for 1932. There's a new line of Ice-O-Matics in production—out in February . . . magnificent jobs . . . eye appeal . . . new features innumerable . . . big sellers for certain!

WILLIAMS ICE-O-MATIC REFRIGERATION

WRITE—TODAY!

Williams Oil-O-Matic Heating Corp.
Bloomington, Illinois
Send me complete information on your exclusive, full-profit Ice-O-Matic dealer franchise for my territory—right now!

Name _____

Address _____

City _____ *State* _____

SERVEL COMMERCIAL FIELD MEN CONVENE

(Concluded from Page 1, Column 5)

morning at the opening of the conference, followed by J. M. Clarke, commercial sales manager, who spoke on the "Growth of the Electric Refrigeration Industry and the Features of the Servel Commercial Line."

F. E. Sellman, vice president of Servel Sales, Inc., and Electrolux Refrigerator Sales, Inc., addressed the gathering, outlining the company's policies and aims for 1932.

C. J. Conkey, sales manager of national accounts, spoke on national distribution and the way to handle that phase of commercial business. His talk was followed by a discussion of advertising and sales promotion plans for 1932 by W. Paul Jones, manager of advertising and sales promotion.

The meeting Monday night had as its speaker C. L. Olin, Servel service manager, who spoke on the features of the Servel commercial line and field installations.

The group was taken through the Servel factories during the Tuesday morning session. Tuesday night a dinner was held at the Evansville Country Club for the visiting representatives and factory commercial staff.

The third day's session included a talk on the future sales possibilities of commercial refrigeration. Office conferences completed the three-day meeting.

INAUGURAL BALL PLANNED FOR G. E. MEETING

(Concluded from Page 1, Column 2)

winners in the Refrigerania sales contest which closed in December.

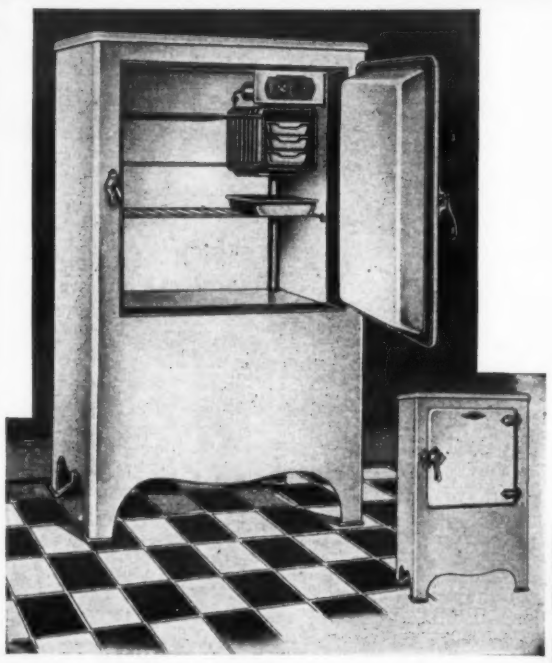
Mr. Dunning will receive his trophies, the eight-cylinder Chrysler convertible cabriolet and a scroll bearing the signature of Gerard Swope, president of the General Electric Co.; and Owen D. Young, chairman of the board of directors.

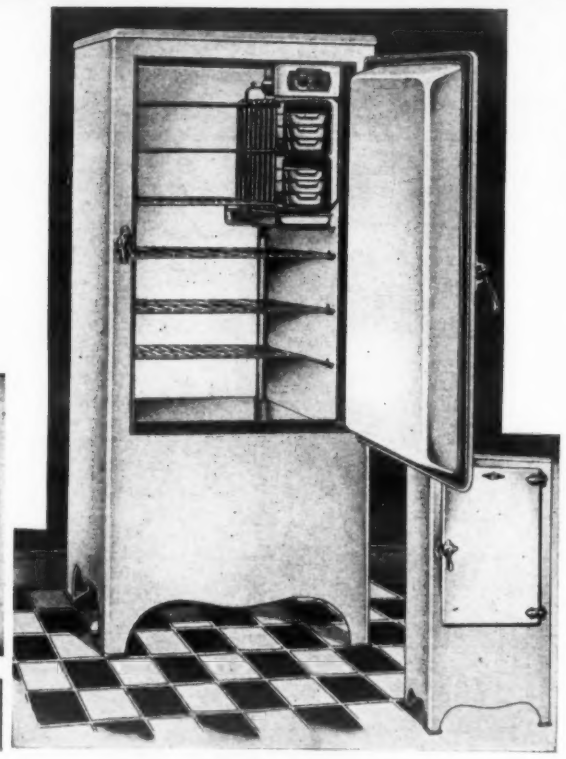
White Ford pickup trucks will be awarded to the cabinet, as well as scrolls signed by T. K. Quinn, vice president of the company, and P. B. Zimmerman, general manager of the refrigeration department.

Complete plans for the spring sales campaign will be revealed at the convention.

Commercial Men Visit Servel Plant

Servel commercial sales representatives view the operation of one of the automatically controlled heat-treating furnaces during a trip through the Servel factories at the recent annual factory conference.





1932 "M&E" Cabinets of Unique Design Greatly Simplify and Reduce Installation and Service Expense, and Give Much More Usable Food Storage Space in Small Home and Apartment Models.

"M&E"

With New GYROSCOPIC Balanced, DIRECT DRIVE Compressor

Vibrationless — Quieter — More Economical

Creates an Unmatchable

PRICE-QUALITY ATTRACTION

The 1932 "M&E" line is designed to meet exactly the current trend—lower prices—greater storage capacity in small, compact models—and the demand for proven economy and quality.

"M&E" is an old and widely used Eastern line. It is one of the most successful of independent makes and has shown steady growth in all refrigeration fields. Strengthened by our current models, "M&E" will earn a steady profit and build a reputation for any aggressive, responsible distributor with an eye to future stability, as well as immediate profits.

A Complete Line for Distributors . . . .

Including two popular models installed at

Less than $150

and Less than $175

. . . and a Complete Line of Equipment for Assemblers Domestic and Commercial

Write or wire our sales-promotion department

MERCHANT & EVANS CO.

Showroom and Main Offices

PHILADELPHIA, PA.

Plants: Philadelphia, Pa. Lancaster, Pa. Wheeling, W. Va.

Est. 1866

MEMBER OF KELVINATOR PROMOTION STAFF DIES

DETROIT—Jay Stacks, a member of the sales promotion staff of the Kelvinator Corp., died of acute indigestion at his home early Saturday morning.

Mr. Stacks had been with the Kelvinator organization for the past three years, and for the last two had held a position in the sales promotion department. Previously, he had been employed as a member of the advertising staff.

He was 32 years old, a native of Salt Lake City, Utah, and was something of a world traveler, having visited various parts of every continent. He once served in the United States navy.

The deceased leaves a wife who took the body to her home at St. Louis, Mo., for burial Jan. 11.

COPELAND OUTLET SELLS 28 UNITS IN 24 HOURS

SPRINGFIELD, Mass.—Securing permission to line up a carload of Copeland refrigerators on the sidewalk outside their store, the Radio Electric Store, Copeland distributor here, succeeded in selling 28 Copelands within 24 hours with the outdoor display as a drawing card.

The shipment was received Dec. 17, and the 28 sold were for Christmas delivery. The Radio Electric Store won the national sales contest for Copeland distributors in 1931, and Carl Windel, salesman for the company, won the national salesmen's contest.

STRINGHAM TO DISTRIBUTE EDISON HOTPOINT RANGES

DES MOINES, Iowa—P. H. Sawyer, sales promotion manager for Warde B. Stringham Co., distributor of General Electric refrigerators, will serve in the same capacity over the firm's new Hotpoint range department in addition to his present work, according to Mr. Stringham, general manager.

Territory covered by the distributor for the range will be Iowa, western Illinois and southern Wisconsin. Organization plans are not yet complete, Mr. Stringham states, but a complete new department will be added to handle the new product.

SEVEN G. E. UNITS PLACED IN HOSPITAL

AUBURN, N. Y.—Seven General Electric refrigerators have been installed in Mercy Hospital, a 100-bed hospital in this city. The new hospital was erected through subscriptions.

Installation of the units, four SS-100, one SS-140, and two ice-makers, was made by the commercial department of Page-Morris, Inc., Albany.

NEW YORK FIRM BUYS STORAGE PLANT

CANASTOTA, N. Y.—The Canastota Refrigerating Co., Inc., recently organized by Frank Hill, North Rose, N. Y., and his associates, has acquired the plant formerly owned by General Foods Corp., and will remodel it for an electrically operated cold storage and refrigerating plant.

CONDITIONED AIR USED IN NEW G. E. CASES

(Concluded from Page 1, Column 5)

cent must be maintained constantly to reduce dehydration to a minimum.

"It has been found necessary, to maintain high humidities, to have a comparatively high evaporator temperature and to have a minimum temperature difference between the evaporator and the air in the cabinet.

"In the 'Conditioned Air' units this is accomplished by the use of forced air circulation. All of the air in the cabinet or the display case passes through a series of tunnels formed by wet evaporator plates at least five times a minute.

Increases Evaporator Effectiveness

"This rapid circulation increases the effectiveness of the evaporator many times with the result that an average cabinet temperature of 38° F. can be maintained with an average evaporator temperature of more than 30° F. The direct benefit is reduced spoilage due to the low temperature and a reduction in dehydration loss due to the high humidity maintained.

"Plates in the evaporator are constantly wet and all of the air in the cabinet is constantly washed and purified. Food odors in the air are absorbed by the water on the evaporator plates and carried to the drain. This air purification is made especially effective since there is frequent contact with the evaporator. The net result is 'fresh' condition in the cabinet with correspondingly retarded bacteria growth.

"Furthermore, the rapid removal of odors hinders the possibility of one food being contaminated by odor from another. This means that foodstuffs susceptible to odor absorption can be stored in the same refrigerator with others which emanate odors.

Aids Cooling of Warm Foods

"The forced air circulation, in addition to offering a uniform temperature in every part of the cabinet or display case, also aids rapid cooling of warm foods when they are placed in the cabinet.

"Due to the increased efficiency of the evaporator resulting from forced air circulation, a comparatively small evaporator can be used, occupying only one-third of the cabinet space heretofore required. In addition, the forced air unit has flexibility, since it can be placed almost anywhere in the cabinet or display case with proper baffling.

"This latter advantage is capitalized particularly in the display case where the evaporator is placed in the bottom, leaving the top entirely free for an effective display of foods. With the coils absent from the top there is more utilization of display space, and two shelves can be used to advantage.

Available in 2 Types

"The 'Conditioned Air' evaporator operates at a temperature of about 30° F. An injector is used in the evaporator which keeps the refrigerant liquid in constant agitation and recirculation. This injector also is used in G. E. ice cream cabinets.

"'Conditioned Air' refrigeration now is available in two types of General Electric refrigerating machines. One is the 'packaged article' type with the evaporator and compressor built as a single unit, which can be used for storage cabinets where there is room to install the unit on the top.

"Second is the sealed-in-steel compressor obtainable for remote installation. In the display case the evaporator may be placed in the bottom of the case and the unit piped from any convenient location farther removed."

3 New Units Developed

Three new types of refrigerating units have been developed. All three embody the same features of forced-air cooling of the compressor case and the condenser.

In addition, one model incorporates forced-air cooling of the evaporator with a consequent circulation and humidification of the air in the refrigerator cabinet.

The units are of the remote type and can be placed in any convenient location not more than 50 ft. from the cabinet to be refrigerated. They are connected to that cabinet by two lines, one a pressure line and the other a suction line.

In the cabinet is placed either a remote evaporator of the forced-air-cooled design or a heat interchanger with refrigerant conducted through the inner liner.

APARTMENT HOUSE BUYS GENERAL ELECTRIC

DETROIT—The firm of Sill and Hadley, property management expert, has installed General Electric refrigerators in the newest apartment building, located at 8711 Vernor Highway.

ADOPT COIN CLOCK PLAN

CHATTANOOGA, Tenn.—The coin clock plan of payment has been adopted by the Daugherty Supply Co., Kelvinator distributor.

Do You Want the Real Facts and Figures about Refrigeration?

DO YOU KNOW THE FACTS concerning the growth of the refrigeration business? Its sales records during recent years? Its future market?

Have you a definite picture of your own local market, as shown by the number of wired homes in your city not yet equipped with electric refrigerators?

Do you know how the present number of homes owning electric refrigerators compares with the number owning automobiles, radios, washing machines, vacuum cleaners?

Do you know where to get refrigeration accessories and related merchandise; parts, supplies, and materials needed for installation and service; advertising and sales services; training courses and books on refrigeration?

Have you the intimate knowledge of refrigeration products and their market necessary to cash in on your opportunity in 1932?

By giving you the facts and figures, the names and addresses, all the information conveniently arranged for quick reference, the 1932 REFRIGERATION DIRECTORY and MARKET DATA BOOK will help you to organize and plan your activities throughout the year.

Because it will be a guide to better business, a handbook for daily use, an encyclopedia of statistical information, the 1932 REFRIGERATION DIRECTORY and MARKET DATA BOOK will be one of the most valuable services ever offered to the industry.

A Directory and Market Data Book

The 1932 REFRIGERATION DIRECTORY will be considerably more than just a list of names. In fact, it will be many useful books in one—

1. Market Data Book and Statistical Survey for sales executives of manufacturers, distributors, and dealers.

2. Alphabetical Directory of all manufacturers.

3. Register of all trade-marked refrigeration products.

4. Classified Directory of manufacturers of refrigeration equipment, parts, materials, and supplies; also manufacturers of refrigeration accessories and related merchandise, production and service tools, office and store equipment; and suppliers of educational, engineering, legal, sales, and advertising services.

5. Geographical Directory of all manufacturers with names of officers and department heads, location of branch factories and offices.

Consisting of approximately 400 pages, 6 by 9 inches, bound in cloth, the 1932 REFRIGERATION DIRECTORY will present an impressive picture of the industry.

The Statistical Section

The Statistical Section of the DIRECTORY will contain the most complete assembly of facts and figures yet published for the refrigeration industry. It will answer countless questions that are asked daily by refrigeration manufacturers, distributors, and dealers who want national and local statistical information—accurate and detailed. This section gives the "plus" value to the 1932 REFRIGERATION DIRECTORY. It alone is worth the price of the book.

Manufacturers' Statistics

Figures showing sales of refrigeration equipment during 1931 are the demand of the hour. The Statistical Section will give the figures for the past year on both household and commercial equipment by sizes, types, and applications. Figures showing quantity and dollar-value will be given for sales of refrigeration cabinets complete with systems, cabinets sold separately machines and cooling units sold separately, sales of miscellaneous parts and total valuation of all household refrigeration equipment sold during the year.

Figures for commercial refrigeration will show the sales by quantity and valuation of water coolers both with and without machines and similar figures for ice cream cabinets, milk coolers, room coolers, display cases, and commercial refrigerators.

Sales of electric refrigerators since 1920 will be charted by years. Quantity sold and retail value will be shown.

Quarterly sales for the past year by the leading companies will be tabulated.

Facts and figures on the manufacture of industrial refrigerating machinery.

Government figures taken from the last biennial Census of Manufacturers.

Distributors and Dealers

Also in the Statistical Section will be revealed the methods and organization by which electric refrigerators are sold, data of a kind never before assembled and published. This information has been obtained direct from confidential records through the cooperation of chief executives of the leading refrigeration manufacturers. This survey provides the basis for an analysis of the dealer organization, its methods and results:

(1) According to the number of units sold per dealer.

(2) According to seasonal variations in sales by months of the year.

(3) According to volume of business in various retail price classifications.

The survey shows:

(1) To what extent dealers are selling household refrigerators only, commercial refrigerators only, or both.

(2) To what extent dealers are selling other kinds of merchandise in addition to electric refrigerators.

(3) To what extent dealers display and sell only.

(4) To what extent they also install and service.

Other facts and figures obtained from the survey include:

(1) Margins allowed to the different classes of dealers.

(2) How many salesmen are employed during the rush season. During the off season.

(3) How much manufacturers are spending for national advertising.

(4) How much dealers and distributors are spending for local advertising.

The study of the activities of distributors shows:

(1) To what extent distributors are selling both household and commercial refrigerators, or specializing in one kind.

(2) To what extent distributors are handling refrigerators exclusively or also distributing other kinds of merchandise.

(3) To what extent distributors sell at wholesale only or also sell at retail.

(4) To what extent distributors warehouse their own stocks or depend upon manufacturers for this service.

(5) To what extent distributors warehouse for their dealers, or have shipments made direct from the factory.

Local Potential Market

The actual number of wired homes in each county, city and town (of 2,500 population or more) will be published. The potential market for household electric refrigerators in each of these towns and cities will be shown in terms of the number of wired homes without electric refrigeration based on the average saturation as of Jan. 1, 1932. By reference to state and city, any dealer, distributor or manufacturer may quickly estimate the local sales possibilities. Potential market figures have never before been available to the industry in the detail shown in this Statistical Section of the DIRECTORY.

Comparative Data

The Statistical Section will also contain tables and charts showing in quantity and value by years the sales of automobiles, radios, washing machines, vacuum cleaners, dishwashers, electric ranges and ironers.

The number of radios installed in homes and automobile registrations will be shown for each state. These comparative figures will provide yardsticks for the use of sales executives in estimating the possibilities for electric refrigerators and other appliances.

Other Facts and Figures

Exports of refrigeration equipment by years and by countries, lists of refrigeration associations with executive personnel and recent developments within the industry are some of the numerous subjects that will be covered in the Statistical Section of the DIRECTORY.

The Directory

Alphabetical Listing

In the Alphabetical Section of the DIRECTORY, all manufacturers of industrial, commercial and household equipment, cabinets, parts, supplies, materials and tools will be listed alphabetically. This special section is arranged for your convenience in finding an address when you know only the company name.

If, after locating the address, you want still further information, such as telephone number, products manufactured, or executive personnel, you can turn to the Geographical Section for additional facts.

Trade-Mark Register

Often the trade name of a product is different from the name of the company manufacturing the product. This section, therefore, will list all trade names of refrigeration systems, cabinets, parts, materials and accessories.

By using this alphabetical listing, you can easily find the name and address of the manufacturer of the product in which you are interested.

Furthermore, as this section will be the recognized industry register of all trade-marked refrigeration products, it will be of great service to those who are considering a trade name for a new product.

Classified Listing

The Classified Directory of products is one of the key sections in the DIRECTORY. Here all manufacturers within the industry, as well as those selling to the industry are listed by products manufactured.

Products manufactured and used by the industry will be arranged in alphabetical order and all manufacturers of products in each classification will also be listed alphabetically.

Whenever you are interested in a certain type of equipment, part or accessory, for instance, turn to the Classified Directory and there you will find a complete list of sources of supply.

Geographical Listing

Not only will the Geographical Section of the DIRECTORY list all manufacturers within the industry according to geographical location, but each manufacturer's listing will also include complete address of main office, factories and branch offices, telephone number, personnel, and complete line of products.

This will be one of the handiest sections in the DIRECTORY. It will show sources of supply near you. It will give you the name of the individual with whom you should get in touch. It will provide a convenient list for all suppliers' salesmen when arranging trips through various territories. In many ways, this master listing will be found highly useful.

For Ready Reference

Other lists to be published include independent service companies, jobbers of refrigeration supplies, refrigeration associations, etc.

We are going to great expense to make the 1932 REFRIGERATION DIRECTORY complete and accurate, and, furthermore, to make its wide array of information readily accessible.

Indexing and careful cross-indexing will enable you to find easily the information you want. The various sections will be printed on paper of different colors for quick identification.

In other words, we are providing, as part of our service to the refrigeration industry, an efficient, workable reference book of market data and buying information. In one handy volume, the DIRECTORY will concentrate facts, figures, names and addresses of daily use to you—most of which will not be available elsewhere.

Order now at one-half price

The 1932 REFRIGERATION DIRECTORY will be issued in February at $2.00 a copy.

In order to estimate the total number of copies needed, we are making a special pre-publication offer at one-half price.

This attractive offer is good only for orders mailed during the month of January.

By acting promptly you can secure your copy at the special price of $1.00 and also make sure of having complete information about your industry as soon as it is released.

Use the coupon. Fill in, detach and mail with your remittance today.

Business News Publishing Co., 550 Maccabees Bldg., Detroit, Mich.

Sign and mail today →

BUSINESS NEWS PUBLISHING CO.,
550 Maccabees Bldg., Detroit, Mich. 1932

Gentlemen:

Please send me as soon as published ..... copies of the 1932 REFRIGERATION DIRECTORY at the special pre-publication price of $1.00 per copy.

I enclose $..... for the above.

Name .....

Attention of } .....
or Care of }

Street Address .....

City and State.....

LITTLE STORIES OF INTERESTING PEOPLE IN THE REFRIGERATION INDUSTRY

THE EXPANSION VALVE

LITTLE STORIES OF INTERESTING IDEAS IN THE REFRIGERATION INDUSTRY

By George F. Taubeneck

Give This Little Girl A Big Hand

With this issue a new name appears on the masthead of ELECTRIC REFRIGERATION NEWS. It is that of Gertrude Stanton, new assistant editor.

Rosy-cheeked, wide-eyed, and with clever words on her lips, Gertrude arrived here about the middle of November fresh from the windswept prairies of Illinois.

Since that time she has been finding out who's who and what's what in the refrigeration industry, studying the editorial methods of the NEWS, and orienting herself generally.

Gertrude can write, as you can see for yourself by reading her first kolyum, "Women," which appears on page 14 of this issue.

She will not only entertain you with stories about the women to whom electric refrigerators are being sold, but will tell you also about the women who are helping sell electric refrigerators. And that won't be all.

We can't resist quoting this "Goodbye to Gertie," which appeared on the title-page of the January issue of the University of Illinois *Alumni News*, from which publication she has graduated to the E. R. N. staff:

"The *Alumni News* is gradually recovering from the shock of losing its able and industrious assistant editor, Gertrude Stanton, '30, who left on Nov. 15 to become an assistant editor of ELECTRIC REFRIGERATION NEWS at Detroit. Miss Stanton had been with the *Alumni News* since her graduation. As a student she attracted favorable attention with her woman's column in the *Daily Illini* called 'Women's Whims.' On the *Alumni News* she wrote the Illinae section, much of the class news—in fact did about everything around the office that needed doing, even the radio talks at times."

* * *

Carl Kolbe

A well-knit, thin-haired, keen-eyed, expensively dressed young man who talks through a motionless mouth walked into our office one day last week and introduced himself.

He was Carl Kolbe. With his brother, Robert, he controls the patents on the Kolbe quick-freezing systems. These two systems—the floating pan and the diving bell—are probably more widely used than any other type of quick-freezing device.

Mr. Kolbe declares that Clarence Birdseye has told him that the Kolbe diving bell is the best quick-freezing system yet devised—except the Birdseye plate and belt frosters.

Incidentally, the Kolbe brothers are following Mr. Birdseye's advice to "go slow; have patience; let this thing come naturally—don't force it."

Mr. Kolbe wanted to know what was going on in the quick-freezing industry today. He had divorced himself from it for six months.

Last summer he gave up, temporarily, promotion of his quick-freezing systems to devote all of his time to a very lucrative fish business.

The quick-freezing boom, he believes, was a product of the inflation. Quick-frozen products cost more today than fresh foods; hence it probably is a tough job to sell them during these times, he reasons.

When business picks up, however, Mr. Kolbe expects to sell plenty of diving bells and floating pans.

* * *

Unpredictable Fish

With his father and brothers, Mr. Kolbe is engaged in a fishing business at Port Dover, Can. How extensive this business is may be glimmed from Mr. Kolbe's statement that it is the chief support of Port Dover, that dozens of fishermen are dependent upon the Kolbe company's sale of frozen fish for their livelihood.

The Kolbes provide the fishermen with tools, sheds, and a market for all they catch and are, in return, assured of a fairly steady intake volume.

This year they quick-froze a dozen carloads of fish. These fish were scaled and gutted; some were filleted. They are sold chiefly to chain stores, which defrost them and sell them as fresh fish.

Both refrigerator cars and refrigerated trucks are used to ship these quick-frozen fish, which are packed in 15-lb. cartons.

When the depression lifts and higher priced products can be sold in quantities by chain stores, Mr. Kolbe expects to quick-freeze and individually wrap fish fillets.

The fishing business, he points out, has great need for quick-freezing, because of the uncertainty of its production.

One can't simply call up a fisherman and order 50 pounds of fish when 50 pounds of fish are needed. They must be caught.

One day the haul may be big; and the next it may dwindle to practically nothing.

Quick-freezing and subsequent storage helps level such peaks and valleys.

Chain stores, Mr. Kolbe believes must be persuaded to pioneer quick-frozen foods in order for the movement to start.

And he thinks that the advantage of a steady flow of quick-frozen fish will help sell chain stores on the idea.

* * *

Birdseye Quality

Outsiders will not be licensed to use the Birdseye quick-freezing systems, Mr. Kolbe says Clarence Birdseye has informed him.

The Birdseye Packing Co. is planning on a nationally distributed line of possibly 600 quick-frozen food products.

Quality will be the theme-song in the advertising and sale of these products; and rigid standards of selection will be upheld.

If others were licensed under the Birdseye patents, Mr. Birdseye discerns, they might freeze inferior selections of food products, advertise them as "quick-frozen by the Birdseye method," and claim quality and value equal to Birdseye Frosted Foods.

* * *

Our First Fiction

During the course of a day an editor gets to see a great many different forms of literary production. There are disjointed notes scrawled unintelligently on foolscap, and impeccably phrased letters beautifully typed on simple but impressive stationery.

Telegrams, financial statements, government reports, brochures, literature of all sorts join in the parade of words.

There are news items from distributors, dealers, manufacturers, publicity men, and subscribers. These come in almost all the degrees in the register of English composition.

It is his privilege, also, to read the output of his staff, in the form of news stories, convention covers, interviews, feature stories, technical articles, and whatnot.

Occasionally a bit of poetry—to be lenient with the term—crosses his desk. Witness the "pome" reprinted in an adjoining column.

But during the tenure of office of this present editor of Electric Refrigeration News, he has never had a chance to read fiction in the course of the day's work—until one day last week.

Gentlemen, a short, short story has been submitted to us by a citizen of Detroit.

And possibly for sentimental reasons—also because you'll enjoy it—we're going to give you a chance to read that short, short story, just as the author wrote it.

If it makes you laugh as much as it made us, the story is more than worth printing. Here 'tis:

"FRIGIDAIRE DEFEATS DIVORCE"

A Short-Short Story

By Edwin Fisher Forbes

Mary could not understand life.

Hers had been unhappy nearly always.

An orphan at six she had not found happiness until two years after she had obtained that sales clerkship.

Then she had met Harry.

She had loved him as no other woman could. They were married within the year. And how happy they were for a time in the little bungalow which he had given her.

Now it seemed that Fate had again predestined Mary to the veil of unhappiness.

It wasn't that Harry didn't treat her kindly or give her enough allowance. Not that. He always left enough to pay the ice man and for her daily journey to the cash and carry stores. Thus, by this method of buying, she was able to store away a little each week. The small hoard of savings had grown. With it she some day intended giving her husband a nice surprise.

Neverthless, Mary was sure Harry had ceased to love her. He stayed at the office two and three nights a week. What it was that kept him Mary was unable to say. She loved him too much to even hint that it might be another woman—perhaps one of the girls who worked for him.

When he did come home he rushed through his meals, leaving half of his food untouched. This grieved Mary very much as she spent hours in the kitchen preparing the food, moving it closer to the ice and removing the spoiled spots that habitually found their way into her larder when the ice gave out. And it always chose week-ends or party days to do this.

She didn't know what to do. Her husband grumbled about the lack of desserts; and when she over ran her budget trying to please him, he said:

"This cake is too dry or the fruit is over ripe."

At length she became distracted. The sunny kitchen, which she once loved, was now a den of echoing complaints. The meats and roasts that turned so deliciously brown under her watchful eye no longer held any charm for her.

Harry remained away more than ever and when at home grew sullen. He complained of dyspepsia. Once he argued loudly about the food; and this first argument became the forerunner of many more.

So miserable did Mary become that, as a last resort, she called on her old friend, Mrs. Traskom, a woman past 50 and full of wise council. Mary horrified her with the single sentence:

"I want to divorce Harry!"

Bit by bit, kindly Mrs. Traskom coaxed the entire story out of Mary, even to the news of the savings hoard which now amounted to over three figures.

"Mary, my girl," said the good friend, "you seem to have forgotten the old adage that 'the quickest way to a man's heart is through his stomach.'" Then she unfolded a plan involving her cuisine wisdom and the expending of Mary's surprise fund.

Two weeks later Mary said:

"Harry, will you please make an effort to be home to dinner tonight? It is our fifth anniversary and I have fixed something special."

He finally grunted an affirmation.

That evening, as he smacked his lips, he said: "Mary, dear, that was the best meal you've ever cooked. That fruit salad was delicious and where did you buy the ice cream?"

"I made it."

"Made it? But we have no freezer." He was puzzled.

"I made it in my Frigidaire. And, by the way, you won't have to give me money any more for ice tickets."

"Frigidaire? What are you talking about?"

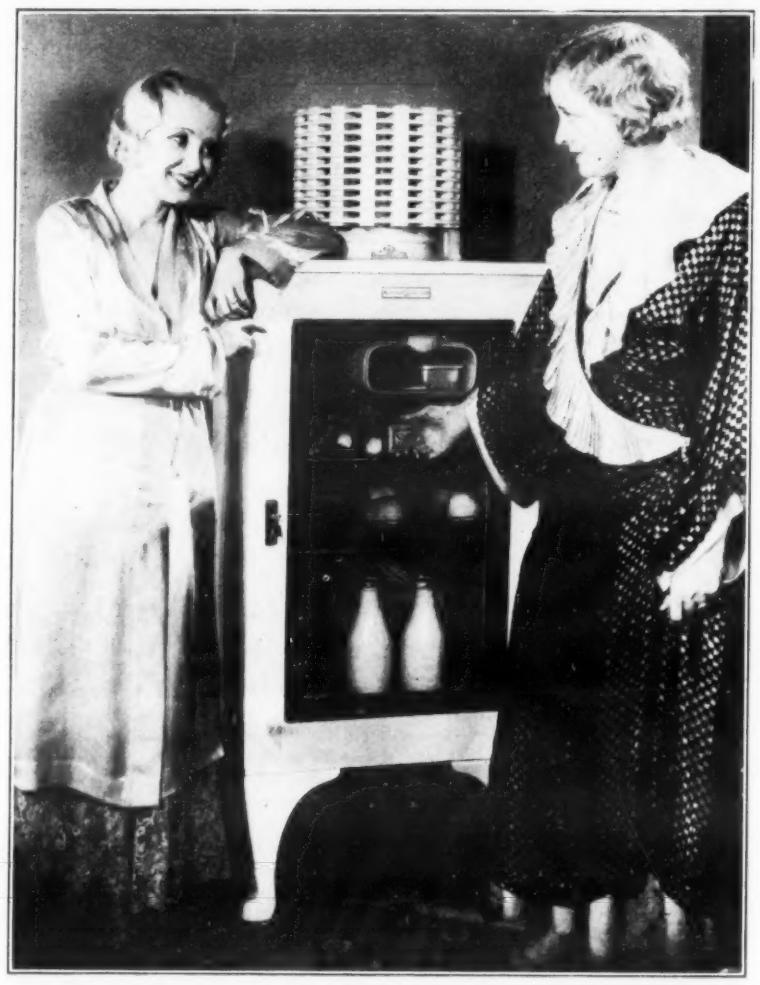
"Yes. It came today. I am buying one on installments out of my savings from carrying my groceries."

"Why, Mary!"

Every meal thereafter was better than the last, and spiced with tasty fruits, frozen custards, and mousses. Harry was so pleased that he forgot his fictitious office wife and completed the remaining payments on the new ice box.

* * *

George Belsey Sent This



They like blondes out in California—just as they do in 47 other states. George Belsey Co., Ltd., Los Angeles distributor for General Electric refrigerators, obtained this picture of a Miss Brady, blonde baby from "Mary Wow," and Myrtle Stedman, character actress.

Charley Spreen Liked This Pome

We present herewith a distinguished contributor to this yere kolyum, Charles C. Spreen of Tilbury Rd., R. F. D. No. 2, Birmingham, Mich.

Great numbers of men in this industry know Charley Spreen, who engineered for Kelvinator during a great many interesting years. He was prominently among those present at the Chicago Code War in 1929.

The pome he likes came from *The Office Illuminator*, published at Jackson, Mich., by the women employes of the Consumers Power Co. Here 'tis:

'Twas the nite before Christmas
And all through the house,
Every light was left burning,
It was quiet as a mouse.

When all of a sudden,
There arose such a clatter,
I called to my wife: "Say! what's matter?"

Away to the window, I flew like a flash,
Rolled up the curtain, threw up the sash.
And, what do you think, stood by the door?
Nothing less than an ELECTRIC FRIG-E-RA-TOR.
I drew in my head, quickly turned round,
Was down to the porch in a single bound.

There in the yard stood a Consumers' truck,
On the porch, the driver, a jolly old duck,
Winked his eye as he pointed below,
To coffee pot, toaster and irons in a row.

He sprang to his seat, I heard the horn toot,
As he sped away, like the note of a flute.
But, I heard him say, 'ere he vanished from sight,
"It's an ELECTRIC CHRISTMAS for you, all rite."

— BECKY.

* * *

New Refrigerant

Add to list of refrigerants: cucumbers.

A cucumber, says an acquaintance of ours on a Detroit newspaper, is always one degree cooler than the surrounding atmosphere. Therefore, he asks, why not cool our houses—or our food—with cucumbers?

He advises distributing cucumbers liberally about the living quarters on mantels, bookshelves, etc.

When the temperature of a room is 80, that of the cucumber will be 79. They will absorb the heat, bringing the room down to 79—and meanwhile will themselves drop to 78. This could go on to any temperature you like.

At least it could, but the wag warns of danger attending their use. There is, he avers, no means of turning off a cucumber.

"I once knew a man," he says, "who went to sleep one hot August night with a bushel basket of cucumbers in his room, and when he woke up next morning he was frozen to death."

* * *

New Racket

Jack Lance, Paul Jones' willing assistant down in Evansville, sends us this clipping about an innovation in Chicago rackets:

A new racket in burglary was disclosed yesterday in a South Chicago court when five youths, charged with 116 burglaries, were arraigned before Judge Leon Edelman.

The burglar gang was accused of operating since last February in smooth unison, systematically robbing vacant apartments of electric refrigerators. They were held over to the grand jury in total bonds of $935,000.

Nearly 200 persons crowded into Judge Edelman's small courtroom to identify the youths as having sold or attempted to sell the stolen refrigerators.

A detective squad under Capt. Michael Grady of the Kensington district arrested the youths. Since then 100 of the stolen refrigerators have been recovered from purchasers.

Those held are: Rocco Anzone, 26, of 4927 Federal St., 37 charges; Stanley Alberts, 21, of 5932 S. LaSalle St., 29 charges; Julius Conrad, 23, of 5932 S. LaSalle St., 28 charges; Frank Chappetto, 27, of 4903 S. Dearborn St., nine charges, and Frank Buglio, 25, of 5331 Wells St., nine charges.

The gang, it was disclosed, operated in a defined territory from Thirty-fifth St. south to Eighty-fifth St. and from the lake west to Crawford Ave.

* * *

Little Willie

Another contributor sends us this epic verse from Ted Cook's kolyum, "Cook-Coos":

Little Willie, reckless laddie,
Ran an ice pick into Daddy.
Mother smiled and smoothed her hair—
"Now we'll get a Frigidaire."

* * *

Apartment Shop

It is said that if all other methods of identification fail, you can always spot a New Yorker by his casual remark that he has either just moved into a new apartment or that he has been looking at new apartments.

Knowing how well N'Yawkers like to shop around for new cliff dwellings, the Henry Mandel companies have established an "apartment shop" at 385 Fifth Ave., New York City.

"Pick out the apartment you like," say Mandel men, "and we'll set it down in the location most convenient for you."

Approximately 2,000 persons visit the "shop" daily, attendants affirm.

Electrolux apartment house models, supplied by the Consolidated Gas Co. of New York, can be found in the kitchens.

* * *

Do You Know—

That you can tell just when your subscription expires by checking the date which appears in the imprint of your address on your copy of the paper.

That when we get a notice from the post office marked "moved and left no address," we must remove the address plate from the active file and simply wait until the subscriber sends in a "complaint" from his new address.

That if you send in a copy of your address cut from the wrapper of your paper when you want your address changed you will get much quicker service, since there is no delay in identifying your account.

That the editorial department likes to get comments on the news it prints in the papers.

That we feel sorry that the fellows who live in Canada have to pay such a high tariff to read the NEWS.

That every subscription goes through from 10 to 15 operations before the records are finally completed and the label made for the mailing department.

That legible writing and complete information as to what is wanted bring joy to the girls in the subscription department who frequently have a tough time trying to figure out orders.

How To Display Refrigerators

As Practiced By Frank Lindgren & Co., Monrovia, Calif.

By Willis Parker

MONROVIA, Calif.—How many units constitute an adequate and pleasing display of electric refrigerators on the sales floor?

Much depends, of course, upon the size of the floor. If it is large, there must be enough merchandise in view to prevent a bare look, if small, a limited number to avoid a crowded and stuffy appearance.

Frank Lindgren & Co., G. E. dealer here, finds five to be the correct number. But the five units are so placed as to permit the proper functioning of the "rule of three." Strange as it may seem, an odd number of units in a display of merchandise is more effective than an even number.

5 Units Better Than 4 or 6

Five units constitute a better floor display than four or six, while three is better than two or four. Although one is an odd number, it must be eliminated as inefficient because the visitor is unable to make comparisons. Not less than three units should ever be displayed.

The human eye is never still; it vacillates from side to side and up and down. If there are three units in a display, the eye falls upon the center one first and vacillates from side to side, taking in the flanking units and sub-consciously making comparisons.

If there are two or four units, there is nothing upon which the eye may center and the visitor is ocularly uncomfortable, though the discomfort is, strictly speaking, psychological.

Eye Centers on Middle

If there are five or seven, nine or 11 units in the display the eye centers on the middle unit—the third, fourth, fifth or sixth unit—and vacillates from it either way until it strikes the extreme ends. This is why an odd number of units always is better than an even number.

However, more than three units in a display reduces efficiency because the eye must swing too far to either side. Hence, where the dealer has more than three units on his display floor, he should arrange them to present a series of display units each containing three items.

Whereas Frank Lindgren has five units on his display floor, he has grouped them so they may readily be separated into groups of three each, as will be noted in the accompanying sketch.

Unit B Attracts Attention

The diagram No. 1 shows that one display consists of units A, B, and C. Another consists of C, B, and D; another D, B, and E, and lastly E, B, and A.

Hence, when the visitor stands at position 1, the eye centers on B and vacillates to A and C. When at position 2, the eye centers on B and swings left and right to C and D. At 3, the eye again centers on B and swings to E and D, and at 4, it centers on B and swings to E and A.

If the dealer's floor space accommodations make Lindgren's arrangements impossible, or if he has more than five units, he should endeavor to group his stock in series of three units. Diagram No. 2 suggests a way, and also shows the dealer with an even number of units how to construct them into series of three.

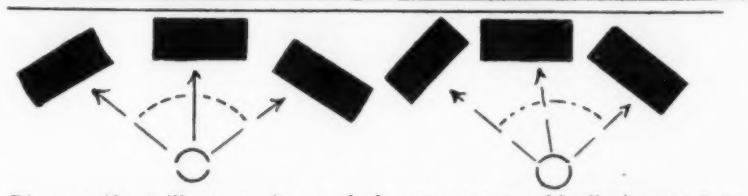


Diagram No. 2 illustrates how a dealer may arrange his display stock to include the rule of three in building more efficient exhibits.

Although 70 per cent of sales are consummated at the home and only 30 per cent at the office and salesroom, according to Mr. Lindgren, the cost of making a salesroom sale is much less than that of making a home sale. Thus, it pays to stress sales at the office and give adequate attention to scientific principles of display.

Customers Entering Salesroom

"We consider every person who comes into our salesroom to look at refrigerators as a red hot prospect," Lindgren asserted. "We believe he has come in to buy. Never do we let the thought enter our minds that the visitor is a curiosity seeker. Nor do we permit ourselves to think that the visitor is merely shopping around and trying to make comparisons of our make of refrigerator with those handled by competitors.

"We mentally assume that the visitor already has made comparisons and that he has come to us with the intention of buying. Backed with such mental assurance, we are able to present our sales talk in an effective manner, so that the visitor assimulates some of our assurance that he wants to buy our particular brand of refrigerator. Our percentage of failures to make sales at the office is low."

Selling at Home

Now comes the question of selling at the home. Mr. Lindgren declares that the salesmen should enable the prospects to contact them as readily as the salesmen contact their prospects.

At some time during the days when the sales effort is underway, there will come a time when the prospect is ready to buy, or when he will want some bit of knowledge that may lead to the consummation of the sale. The salesman should be easy to reach.

The salesman's name, the firm name, the firm's address, the firm's telephone number—all of these should be continually impressed upon the prospect's mind so that when the psychological moment arrives the prospect may summon the salesman. These results may be accomplished by frequent personal and telephone calls, and by an abundance of direct mail advertising.

So successfully does this firm sift likely prospects from the general run of possibilities, that 85 per cent of the trials result in sales. No machine is put in a home on trial unless the prospect has at least an average home and possesses a desire for the better things in life.

Arrangement with 5 Models

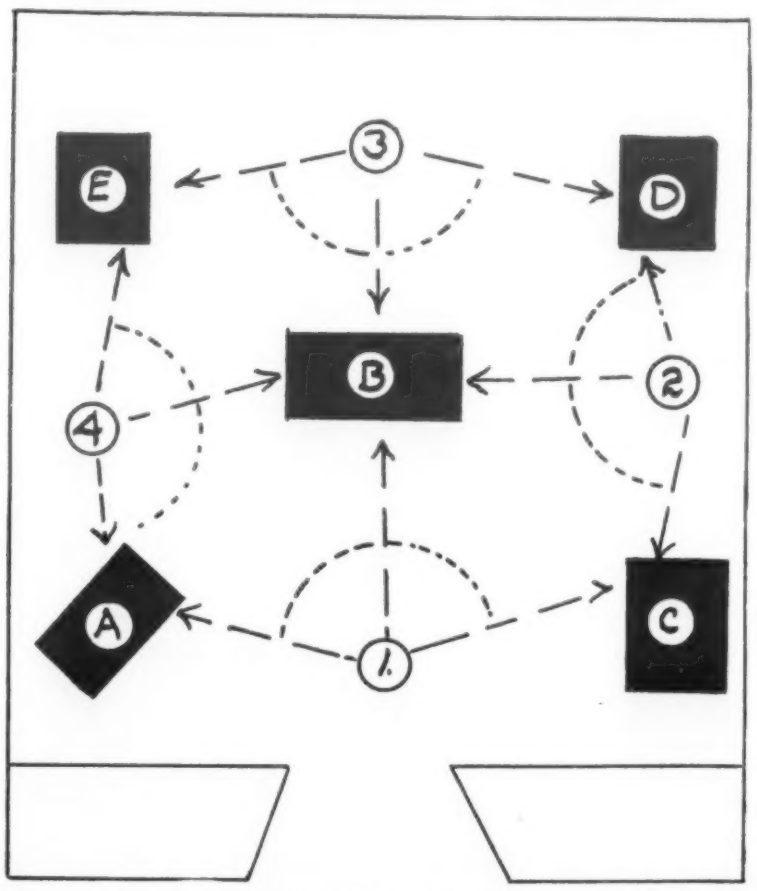


Diagram No. 1 illustrates the position of the refrigerators on the sales floor of Frank Lindgren Co., and how the rule of three is applied to five units.

COURTEMANCHE APPOINTED DISTRIBUTOR'S SALES HEAD

SCRANTON, Pa.—B. A. Courtemanche, of Scranton Distributors, Inc., Servel commercial distributor in this territory, has been appointed sales manager in charge of sales and service in the electric refrigeration division.

Courtemanche joined Scranton Distributors, Inc., about a year ago.

PENDERGRAPH-BROWN, INC., DISTRIBUTES HOTPOINTS

MEMPHIS, Tenn. — Pendergraph-Brown, Inc., distributor of General Electric refrigerators, has taken on the distribution of the General Electric Hotpoint range as of Jan. 1.

Organization for handling the ranges will be completed within the next 30 days, according to H. A. Pendergraph of the firm.

Norge Owner Wins Essay Contest

FRAMINGHAM, Mass.—Mrs. Frances B. Patch, a Norge owner, has been awarded first prize of $50 in a cooperative essay contest sponsored by seven local refrigerator dealers during December.

The second prize of $10 went to the Rev. George H. Lewis, and a third of $5 to C. E. Buffum. Ten $1 prizes also were distributed.

The contest was successful enough in bringing prospects and sales to the dealers that additional contests in the field of refrigerators and ranges will be held during the winter.

The plan involves an expenditure of $25 per dealer, part of the money going to five half-page advertisements in the newspapers.

Essays winning the first three prizes were published in the *Framingham News*.

BRENNAN HEADS BURNS RANGE SALES

PHILADELPHIA, Pa.—The Judson C. Burns Co., General Electric refrigerator distributor in this district, has appointed John Brennan to head a new department handling General Electric Hotpoint ranges, it has announced.

Mr. Brennan has been associated with the electric range business for 12 years. According to Mr. Burns, the refrigerator and range departments will be kept separate for the most part.

G. E. SOLD TO RESTAURANT

CLEVELAND, Ohio—The commercial sales department of the Cushman Refrigerator Co., recently sold a model CS-601 General Electric refrigerator to Pat McLaughlin for his restaurant, at 1011 Chester Ave.

REFRIGERATION FIRMS FIGHT BUSINESS TAX

OAKLAND, Calif.—Firms handling electric refrigeration equipment are among those opposing the passage of a revised business tax which will affect every person and firm doing business in the city, and which is expected to raise $310,000 annually. The tax has been voted first passage by the Oakland City Council.

The measure is based on income and the number of employes hired, and includes a special municipal tax for business vehicles, hitting refrigerated trucks and their users.

Three main divisions, wholesale, retail, and professional, are provided for in the new ordinance. It requires that all firms file an annual statement of receipts, number of employes, and number of business vehicles used.

More than 70 business organizations have filed protests against the measure.

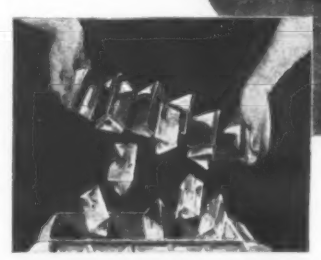
Manufacturing establishments with one employe and gross receipts of less than $1,500 will pay an annual tax of $3, with this increasing to $12 where receipts are $5,000 or more. The tax increases proportionally with the number of employes. A tax of $5 is placed on each vehicle weighing less than 1,000 lbs., with 25 cents added for each additional 1,000 lbs. or fraction.

DAVENPORT DEALER HAS KELVINATOR WAREHOUSE

DAVENPORT, Iowa—Kelvinator activities in Iowa center around this city. The company's direct factory branch is located here.

The Mueller Lumber Co., local dealer selling both domestic and commercial installations, has large enough warehouse facilities to be designated as a Kelvinator parts depot, and supplies dealers throughout the territory.

Just Like Handing You Extra Profit on Every Refrigerator You Sell



No water is needed to remove the ice from the Easy-Out. Just press down sharply on ends of grid. Lift out the grid and twist or flex it. If an abnormal freezing condition occurs, a dash of water on back of tray produces immediate results.

MULTIPLY the number of refrigerators you expect to sell in 1932 by the 40% profit you make on each Easy-Out and you have a nice bundle of extra cash. You can make such calculations actually come true if you equip every refrigerator you display, sell or have in stock with one or more Easy-Out Ice Trays and sell this popular accessory as regular equipment on every box you deliver. Include the full retail price in the delivered price of the refrigerator, mention Easy-Outs as a sales advantage in your salesroom talks and collect the welcome extra profit.

Most motor cars are sold at an f. o. b. price that does not include a spare tire. But when you buy the car it has a spare tire on it. And you pay the cost of the spare in the difference between the f. o. b. and the delivered prices. Easy-Outs can be sold the same way—are being sold that way, in fact, by many successful dealers. Why don't you order a supply of Easy-Outs, equip all your refrigerators with them, and make this easy extra profit on every sale?

FREE ELECTRIC FLASHER

This automatic salesman and demonstrator will help you sell Easy-Outs when put in your show window or on your front counter. It's FREE to all dealers who order a supply of Easy-Outs. Send for yours today!

REFRIGERATION ACCESSORIES DEPARTMENT OF **McCORD** RADIATOR & MFG. CO. DETROIT, MICH.

How To Sell Refrigerators

As Told By J. M. Wanner, National Champion Westinghouse Salesman

By Betty Marshall Griffin

WASHINGTON, D. C.—Fifteen to 30 canvass calls daily, unrelenting persistence when on the trail of a good prospect, a thorough knowledge of refrigeration gleaned by continuous reading on the subject, and a studied analysis of prospects recorded on a religiously kept card index, are the principal sales tools used by J. M. Wanner, 70-year-old gentleman who won the first Westinghouse refrigerator national contest for retail salesmen.

When I saw Wanner in Washington, D. C., he had his coat off and his sleeves rolled up—he was down in the dugout of the Edgar Morris Sales Co., as the sales gallery and conference room in the basement is called, while his brief bag was sprawled out on the table beside him and before him lay a miscellaneous assortment of papers, over which he was poring with intense interest and making copious notes.

There were salesman's reports on his left, lists of prospects drawn up in the rough on his right, neatly arranged loose leaf records in a small pocket note book in front of him, also some prospect cards, and Wanner was bending over them pushing his pencil eagerly. He looked up as I came in and nodded "Yes, madam, anything I can do for you?"

Sales Made on Fifth Call

"Well you seem busy—never like to interrupt a busy man," I remarked.

"Oh, just lining up some prospects for tomorrow," he smiled, "and a few for closing tonight."

"You must work pretty hard for a man of your age," I said, "to win a national contest in which hosts of other salesmen competed."

"Well, I try to keep up with the rest of the young fellows," he grinned. "And when you love your work you can accomplish wonders."

And then he added more seriously, "Competition is keen, prospects have the habit of saying 'NO' at the wrong time. you've got to dig up new prospects, and what's more important—you must never give up.

"Many a sale is made on the fourth or fifth comeback, when the ordinary salesman would let them slide after the second or third call, but I never put their names in the 'dead' file until I know positively they are dead ones."

Makes Notes on Everything

"What are all those papers in front of you?" I asked. "Thought salesmen carried things in their heads and were too busy hotfooting after prospects to keep records."

"Not I," replied Wanner. "I leave nothing to chance. Everything is put down in black and white, where it can not get away. I make a note of everything and anything, whether the wife is pleasant or hard to get along with, whether she has any children, and, if not, whether she has any pets. If the husband has some golf sticks lying around in the hall I note that, for all these things come in handy.

"Suppose you run up against a stone wall, both husband and wife just simply sit tight and you cannot get anywhere with your sales conversation—you then stop abruptly when the opportunity offers and begin talking his hobby or you steer the conversation into talking about her pets. After you get them all enthused and talking about that, you sit by and listen contentedly until they finish, then you come back fresh with a sure fire closer and the sales order is signed."

"How do you unearth prospects for closing?" I asked.

"Well I have a weakness for shoes. I like good comfortable soles on my feet, and then I tramp from door to door and block to block ringing doorbells and unearthing prospects, smiling my way past the outer door and gaining an entering wedge into the good graces of Mrs. Housewife. It is all done through cold turkey canvassing."

15 to 30 Canvasses Daily

"Did you work harder during the contest than before?" I asked.

"I not only worked hard during the contest, but I worked just as hard before and I am working just as hard now," he replied. "I made some 15 to 30 canvassing calls a day regularly during the contest, but that does not mean that I am not still doing the same thing now.

"During the course of a week I try to average at least 30 calls a day, counting in long and short calls (length of calls depending on the prospect's interest). I might have worked a bit more on closing the sale during the contest but, since my pay check depends on it I am just as anxious to close today as I ever was."

Uses the Users

"Where do you get your leads?" I asked.

"I am always hot on the scent of leads furnished by satisfied users who recommend others, and I always call back after a machine has been installed to see how they like it and at the same time to get some good sales ammunition to shoot at other prospects."

"Is that the best way of getting leads?" I inquired.

"Well, it is one way, but cold turkey canvassing is the thing that does the work and turns the trick. And whenever I get a prospect warmed up I make an appointment for a night call and try to close the deal."

"Are prospects always cordial?"

"I find prospects generally agreeable. They do not slam doors in your face, if you know how to approach them and talk to them. But then my age may have something to do with it, and then too it may just be the knack I have of opening the canvass."

"Of course, I can also thank my good health and vitality, plus a contented mind. And then I had foresight enough to know that as soon as I got to understand my product better than my competitors thought they knew it, I would cash in on my ability."

Makes Study of Refrigeration

"Did you make sales from the first day you started?"

"I was with the organization three or four months before I began selling successfully. During that time I plugged hard from day to day, and built up a tremendous number of active prospects, so that when I had a sufficient number built up, it was not difficult at all to go out and build up sales. My whole success rests on plain door-to-door plugging.

"I know my product. I KNOW refrigeration. I constantly analyze competitor's machines. I read anything that pertains to electrical refrigeration. I get all the sales data I can.

"If a prospect is practically sold on another make, I admit it is a good machine, but in comparison I give them the good points of our machine. I try to gain the prospect's confidence. And there is an inspiration in having a good sales message to offer them, and when you have them convinced, you can get the sale."

Use of Eye Appeal

"Do you talk most of the time or use pictures in lieu of sales conversation?"

"I carry a whole brief bag full of convincing literature, descriptions, photos, etc., because good visual demonstrations are convincing and the use of an eye appeal story does the trick.

"I have an album of photographs, the first showing the refrigerator closed, then the next one with the doors open and appetizing food on display, and then the series progresses from the biggest ice box in front to the smallest in the back. I sell mostly the medium size refrigerator—the regular household refrigerator unit."

"What is the principal objection raised by prospects?"

"There seems to be no such thing as a principal objection. Some say they haven't the money. Then there is the tendency to put things off. I try to overcome these objections in various ways. I go back to them right along and keep in close touch with them. Sometimes I have to make four or five calls before I make a sale. Some come easy and others come hard."

"Do you analyze your prospects?"

"I divide all my prospects into three different groups (1) active, (2) inactive, and (3) doubtful. If I sell one of the active ones I go into the second file and place an inactive card right over in the active file, so that my active file always has its full quota of prospects.

"I do the same thing in the doubtful column and if I think that they will be all right to call on, I put them in the inactive file until such time as I can see them again and have another talk with them. I call on active people every week or 10 days, keep in touch with them by telephone, or send them literature."

"How much time do you spend lining up prospects?"

"Every afternoon after work I line up my prospects for closing that night. I correct my prospect file religiously painstakingly, and thoroughly. I have a small 3x5 information card on which I keep a record by days of just when I first called, when I called back, what the prospects said and did, how they reacted, etc.

"I know when a prospect is a 'dead' one and I do not waste any more time on him. I know generally by his conversation or I find out what his standing is, and his prospects of buying.

Knows When They Are Dead

"When do you consider a prospect not a prospect?"

"I never put prospects in the 'dead' file until I am positive I know what I am talking about—and that is one secret—because too many salesmen neglect the follow up—maybe in four or six months they will be open to buy, but meanwhile if you don't call back your canvass is wasted, because within that six months some other salesman happens along and they are just 'ripe' and he plucks the plum which you had been ripening for him all the time without knowing it.

"If you file that card too late, or say for a call back later, you simply lose out. You have got to judge whether they are stalling you or trying to put you off."

Method of Listing Prospects

"How do you keep your prospects listed?"

"After I make calls I note them regularly in my looseleaf book. I keep a handy reference record arranged both alphabetically and by street number. I put it all down here, name and address, and sales data right after that. I can refer to that at any time, and see just what I have done on a certain day.

"I think that is the most important part of keeping records. I carry this looseleaf record in my coat pocket all the time. It is my selling 'bible.'

"I have the index by names and streets because I might forget as I go along the street that there is a prospect right across the street, or within the block, and because if I want to know about a certain prospect on a certain street, I can find the name if I know the street and number, or if I know the number of the house, I can find the name."

Daily Routine

"How much time do you spend canvassing?"

"I generally leave the office about 9:00 in the morning and get started on the day's work along about 9:30, as it takes about 25 minutes to get into my territory. I generally quit at 12 and go back at 1:30 and work through to 4 and 4:30, because at that time the housewife starts making preparations for the evening meal, then I go back about 6:30 o'clock on night calls."

Sells Wife, Husband

"Do you try to sell the wife, the husband, or both?"

"It is not my policy to try to sell the wife because I may get into a jam. You have got to be a good judge of human nature in this game. Generally I try to get the man and woman together after the first call, and I do that at night.

"The day is spent in uncovering prospects and the night in closing them. I also use Saturday half holidays a good deal to catch them both in.

"It is practically all foot work, canvassing from house to house and block to block. Sometimes I get one prospect in 10 or more calls and sometimes I get as high as two. It depends upon the location a good deal.

"To succeed as a salesman study your customer and your product, then smile with confidence. It is all a matter of friendliness, tact, judgment, and good common sense. And then I use this yardstick in my work: (1) Number of calls made per day—per week; (2) Percentage of calls sold per day—per week. By measuring myself with this yardstick I can tell whether I am accomplishing what I set out to accomplish each week or whether I am falling behind.

"If I am not forging ahead, I try to analyze the situation and see how I can improve for the future. The trouble with most commission salesmen is that if they have one good week they go on a lazy 'spell' the following week. They don't keep up the pace. I try to make each succeeding week better than the preceding one."

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New York, 3107 Chanin Bldg;
Detroit, 515 Stephenson Bldg;
San Francisco, 149 California St.

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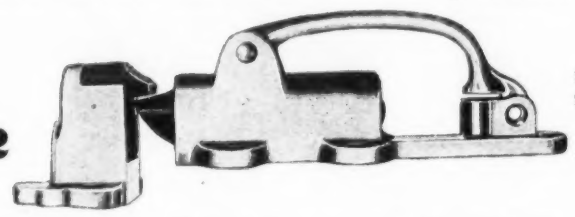
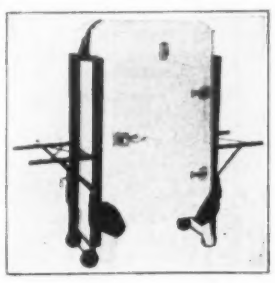
KASON K-54A REFRIGERATOR LATCH



Pat. Des. No. 81737
1932 MODEL
Send for Samples on Approval
Kason Hardware Corp., 61-67 Navy St., Brooklyn, N. Y.



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• ■ •

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• ■ •

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Minimum contract—13 insertions in consecutive issues.

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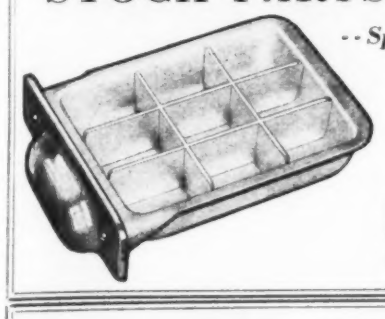
--Speed Up New Model Production



Hoosier Stock Parts save retooling expense, eliminate profitless small operations, stop delays. We ship *from stock* to meet your production schedules. Send us your specifications for quotation on stock or special designs.

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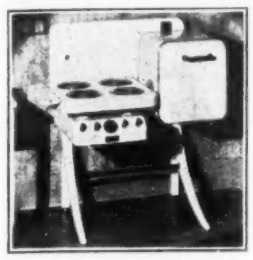

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the Modern Electric Range with

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ELECTROMASTER, INC.
1803 E. Atwater St. Detroit, Mich.

Hard and Soft

Rubber Parts for Electrical Refrigerating
Ice Cream Cabinet Parts, including

Lid Collars, Sleeves, Brine Hole Stoppers, etc.

Specializing in Rubber Parts manufactured to customer's specification

Dryden Rubber Company
1014 S. Kildare Ave. :: Chicago, Illinois

CABINETS

Lacquered Steel and Porcelain Exteriors

Sizes stocked from 3½ to 8 cu. ft. net capacity, also built to specifications for unit installation.

Cabinets for Multiple-jobs

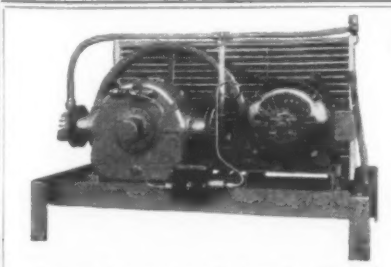
ILLINOIS REFRIGERATOR CO.
MORRISON, ILL.

SITKA SPRUCE SPECIALISTS

Enormous capacity, complete manufacturing and special drying facilities enable us to guarantee:

To deliver Sitka Spruce at less than 9 per cent moisture content.
To eliminate large lumber inventories at your plant.
To keep you supplied at all times.

C. D. JOHNSON LUMBER COMPANY
PORTLAND OREGON



A complete range of sizes for Methyl Chloride, Air or Water Cooled Condensers, Standard or Heavy Duty Types

BAKER Commercial Refrigerating Units

The Profitable Answer to Every Refrigerating Need

Distributor's Inquiries Invited

BakerIceMachineCo., Inc.

Manufacturers of Ice and Refrigerating Machinery for more than twenty-five years

1518 Evans St. Omaha, Nebr.

YOUR ADVERTISEMENT

in this Buyer's Guide Column will be seen by distributors, dealers and refrigerator manufacturers throughout the entire world.

SPECIAL LOW RATES

make it easy to keep industry buyers constantly informed of your products and service.

Electric Refrigeration News
550 Maccabees Bldg. Detroit, Mich.

Requests for Information

Readers who can be of assistance in furnishing correct answers to inquiries, or who can supply additional information, are invited to address Electric Refrigeration News, mentioning query number.

Brine Ice Manufacturers

Query No. 622—"What companies in the United States and Canada manufacture brine ice?"

Answer—Flakice Corp., New York City, and Vilter Mfg. Co., Milwaukee, Wis.

Compressor Seals

Query No. 623—"Please advise where we may secure small seals for reciprocating compressors."

Answer—Seals from Rotary Seal Co., (formerly Cooke Seal), 809 W. Madison St., Chicago, and Fulton Sylphon Co., Knoxville, Tenn. Bellow from Clifford Mfg. Co., 564 E. First St., Boston, Mass.; Bishop & Babcock Sales Co., 4901 Hamilton Ave. N. E., Cleveland, O.

Durex Shaft Metal

Query No. 624—"What company manufactures a shaft metal known as Durex?"

Answer—Moraine Products Co., Dayton, O.

A. S. R. E. Data Book

Query No. 625—"Will you furnish me with information on the A. S. R. E. Refrigerating Data Book and Catalog?"

Answer—Communicate with David L. Fiske, A. S. R. E. secretary, 37 W. 39th St., New York City.

Colde Refrigerator

Query No. 626—"What company is developing the Colde refrigerator which will operate on the electrolysis principle?"

Answer—Midland Electric Co., Indianapolis, Ind.

Household Refrigerator Manufacturers

Query No. 627—"Have you available a list of all manufacturers of complete household electric refrigerators?"

Answer—See list in Sept. 30 issue. Revised list will be published in 1932 REFRIGERATION DIRECTORY to be issued early in February.

Holmes Refrigerator Parts

Query No. 628—"What companies handle parts and temperature control adjustments for Holmes domestic refrigerators?"

Answer—Standard Steel Co., Hartford, Conn., and American Hardware Stores, Fairfield Ave., Bridgeport, Conn.

Gas Refrigerators

Query No. 629—"What companies are manufacturing gas refrigerators outside of the Consolidated Gas Co.?"

Answer—Electrolux Refrigerator Sales, Inc., Evansville, Ind.

Small Rotary Compressors

Query No. 630—"I would like to know where I can secure a small rotary air compressor."

Answer—Houde Engineering Co., 537 E. Delavan Ave., Buffalo, N. Y., and Sunbeam Electric Mfg., Evansville, Ind.

Milk Cooler Manufacturers

Query No. 632—"Will you kindly furnish us with the name of the manufacturer of the Regal Milk Cooling Tank?"

Answer—This trade name not on our list. Perhaps you mean the "Reco" milk cooler manufactured by Domestic Utilities, Garrison Blvd. at Western Maryland Railway, Baltimore, Md.

Query No. 633—"What companies manufacture a refrigeration unit that will take care of 100 gallons of bottled milk daily?"

Answer—Baker Ice Machine Co., Omaha, Nebr.; Brunswick-Kroeschell Co., New Brunswick, N. J.; Carbondale Machine Co., Excelsior Division, Carbondale, Pa.; Copeland Sales Co., Mt. Clemens, Mich.; Frigidaire Corp., Dayton, Ohio; General Electric Co., Refrigeration Department, Hanna Bldg., Cleveland, Ohio; Kelvinator Corp., Detroit, Mich.; Servel Sales, Inc., Evansville, Ind.; Universal Cooler Corp. Detroit, Mich.

Tinned Copper Tubing

Query No. 634—"Kindly advise us where we can obtain tinned copper tubing."

Answer—Bush Mfg. Co., Hartford, Conn.; French Mfg. Co., Waterbury, Conn.; Mueller Brass Co., Port Huron, Mich.; Rome Turney Radiator Co., Rome, N. Y.; Summerill Tubing Co., Bridgeport, Pa.; Wolverine Tube Co., 1491 Central Ave., Detroit.

Manufacturers Association

Query No. 635—"We understand that there is an association of electric refrigerator manufacturers. Who are the members?"

Answer—Refrigeration Division of National Electrical Manufacturers Association, Graybar Bldg., New York City. Member companies are Electric Refrigeration Department, General Electric Co., Cleveland, Ohio; Frigidaire Corp., Dayton; Kelvinator Corp., Detroit; Servel, Inc., New York City; Copeland Products, Inc., Mt. Clemens, Mich.; Norge Corp., Detroit; Tennessee Furniture Co., Chattanooga, Tenn.; Trupar Mfg. Co., Dayton, Ohio; Westinghouse Elec. & Mfg. Co., Mansfield, Ohio; Universal Cooler Corp., Detroit, Mich.

Safety Refrigeration Codes

Query No. 636—"What cities in New York, New Jersey, and Connecticut have adopted some form of refrigeration code?"

Answer—New York City, Yonkers, N. Y.; White Plains, N. Y.; Elizabeth, N. Y.; New Haven, Conn. The state of New Jersey has recognized the American Standard code for the state but the large cities are privileged to adopt their own code.

ANSWERS TO BACK QUERIES

Query No. 611—National Vulcanized Fibre Co., Wilmington, Dela., can furnish lugs for supporting wire shelves in electric refrigerators.

LITERATURE OF MANUFACTURERS

Catalogues, bulletins and other materials recently issued.

Manufacturers are requested to send copies of new trade literature to Electric Refrigeration News.

Kelvinator Refrigerators

"Which Kelvinator Shall I Buy," is the title of a folder in two shades of orange, black, and white, just received from the Kelvinator advertising department.

The folder shows all 17 domestic models, with general features of each line (D, S, PK, and K) and individual specifications beneath the picture of each model. Close-up pictures of 12 Kelvinator features, including the frost chest, rubber tray, cabinet legs, control panel, cutaway construction picture, etc., are shown, each divided and emphasized by an orange stripe.

Copy on one fold discusses "Eighteen Years of Experience," and "World's Fastest Freezing.

Thriftime Devices

The "Thriftime" combination electric clock and coin receptacle made by the manufacturers of Sangamo clocks for Thriftime Devices, 205 East Forty-second St., New York City, is the topic of a one-page broadside being used for direct mail by the company.

The "Thriftime" has an enameled buff finish, and holds half dollars, quarters, dimes, and nickels. It is for use on a 100 volt 60 cycle alternating current, the copy says.

The clock is to be opened once a month and its contents brought or sent to the dealer to be credited. When the refrigerator is paid for, the clock also belongs to the customer.

S. A. Weiss is sales manager of Thriftime Devices.

Kelvinator Refrigerators

"Compare! Kelvinator alone is automatic," is the message on the Kelvinator January poster for outdoor advertising. The background of the poster is in two shades of blue, with the word Kelvinator in white letters, and the words "alone is automatic" brought out in canary yellow.

A more than life-size picture of a Kelvinator model stocked with food appears at the left.

Space 20 in. high by 231 in. long is left for the dealer's name.

GENTSCH-THOMPSON SETS UP SEPARATE RANGE STAFF

BOSTON, Mass.—Separate organization to handle the direction and sale of Hotpoint ranges is being made by Gentsch & Thompson, Inc., Boston distributor of General Electric refrigerators and Hotpoint ranges.

Henry Erath, Fred Levesque, and Miss Virginia Marche have been appointed to direct sales and demonstration of the product. All three have been with the Edison Electric Appliance Co., in Boston, according to G. M. Craig, sales promotion manager for Gentsch & Thompson.

FRANKELITE CO. PLANS TO ADD MORE DEALERS

CLEVELAND—Expansion of the dealer organization will be one phase of the Frankelite Co.'s 1932 drive to merchandise Copeland refrigerators in northern Ohio, David Frankel announces.

The company is also planning to take display space in the Food and Automobile Show.

ADDS NORGE LINE

TULSA, Okla.—Lee Holland, Tulsa representative of the Brown Electric Co. of Oklahoma City, announces that his company has added to its distribution of Atwater Kent radios that of Norge refrigerators.

THE CONDENSER

ADVERTISING RATE fifty cents per line (this column only).

SPECIAL RATE is paid in advance—Positions Wanted—fifty words or less, one insertion $2.00, additional word four cents each. Three insertions $5.00, additional words ten cents each. All other classifications—fifty words or less, one insertion $3.00, additional words six cents each. Three insertions $8.00, additional words sixteen cents each.

REPLIES to advertisements with box numbers should be addressed to the box number in care of Electric Refrigeration News, 550 Maccabees Building, Detroit, Mich.

POSITIONS WANTED

WANTED—Connection with manufacturer's branch or big distributor for domestic and small commercial refrigerating machines. Sixteen years' experience in organization, sales, installation, and service methyl chloride, sulphur dioxide, and ammonia to two-ton capacity. Thoroughly understand all branches and amply able to assume all responsibilities. Prefer drawing account to commissions. Box 403.

EQUIPMENT FOR SALE

FOR SALE—Complete stock of Genuine Zerozone Service Parts for all Size Zerozone Machines from 1/6 to 1½-hp. Compressors, Motors, Brine Tanks, Expansion Valves, Trays, etc. Zerozone St. Louis Co., 2317 Tennessee Ave., St. Louis, Mo.

EQUIPMENT WANTED

WE WOULD LIKE to buy a quantity of Holmes and Iroquois refrigerators. We are especially interested in the compressor units; and will pay cash. State prices wanted and condition of machines. Would like to make connection with someone to manufacture compressors, similar to Iroquois. Munn & Cassaday Company, 910 Grand Ave., Des Moines, Iowa.

INCREASE *Your* INCOME AT HOME... In Spare Time!

New . . . Easy . . . Practical Home Training!

HERE'S good news for men who produce, sell or service electric refrigerating equipment! A marvelous new method now teaches you the vital principles and practices necessary for big returns! No study drudgery. Practical and fascinating. Complete, easy to grasp. Prepared by experts. Approved by leading manufacturers. Charts, diagrams, drawings help you learn quickly. Low cost, easy terms. Trained men available. Write today!

This Valuable FREE BOOK *Tells How!*

UTILITIES ENGINEERING INSTITUTE
4403 Sheridan Rd., Dept. 412 Chicago, Ill.

GEORGE PATTERSON, INC. INTO NEW HEADQUARTERS

ST. PETERSBURG, Fla.—George Patterson, Inc., General Electric distributor, has moved to new headquarters in the *St. Petersburg Times* building which are more than twice the size of the old headquarters.

The entire fifth floor of the building is given to the Patterson offices. The St. Petersburg newspapers each devoted nearly an entire page of news space to the opening of the new offices, and carried photographs of the officials of the company.

OKLAHOMA DEALER FINDS STORE MEETINGS USEFUL

OKLAHOMA CITY, Okla.—Store meetings play an important part in the business of selling electric refrigeration with the Pettee Hardware Co., of Oklahoma City.

Meetings are held on the average of once a week and all salesmen and employes are required to attend. A program is worked out, often of discussions based upon articles appearing in trade papers.

New selling plans are presented at these meetings as well as plans of store display and management. These meetings help to breed better understanding between employes, Pettee's believes.

EISENBRANDT SUPERVISES BRANCH IN WASHINGTON

BALTIMORE, Md.—Effective Jan. 1, A. S. Eisenbrandt, an executive of the Eisenbrandt Co., Inc., Baltimore and Washington distributor for Majestic electric refrigerators, assumed personal charge of the Washington office of the concern, according to announcement by R. P. Deubell, general manager of the company.

Mr. Deubell will continue in charge of the Baltimore office.

KELVINATOR-LOS ANGELES BRANCH LEASES STORE

LOS ANGELES—Space in the Wilshire-Domingues Bldg., 5418 Wilshire Blvd., has been leased for a five-year period by the Kelvinator-Los Angeles Co. The new showroom will be occupied Jan. 1, according to J. Simon, president and general manager of the company.

Approximately 30 salesmen will work out of the new office.

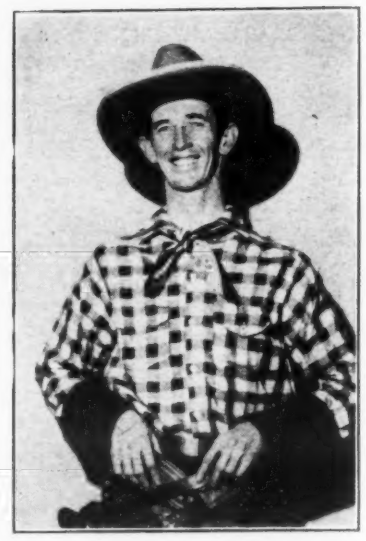
Westinghouse Bronco Busters Invade Plains of Mansfield

Lightnin' Draw

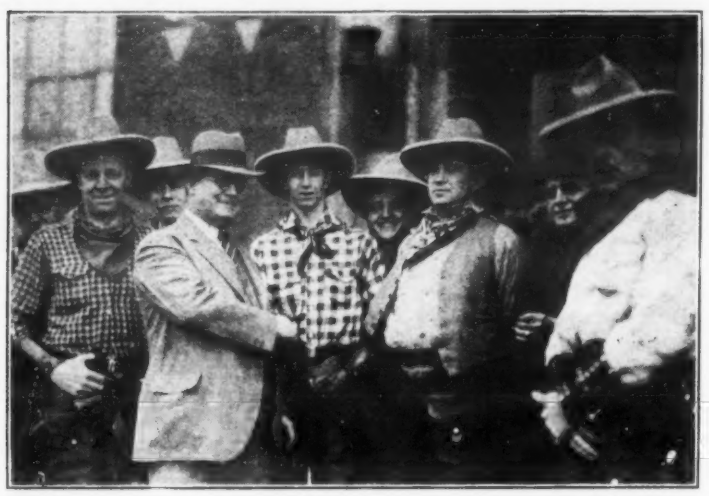
J. L. Mullen, Huntington, W. Va., one of the Westinghouse "Quota Busters" showing the boys a "lightnin' draw" with the trusty Colt—under-the-armpit style.

Mansfield, Ohio, turned out full strength to welcome Westinghouse's nine Quota Busters, who are seen here with some of their hosts and three city officials. The three men in civies in the front row are Mayor C. S. Moore, Police Chief R. A. Schad, and Municipal Judge R. E. Hutchinson.

Up 'Nawth'



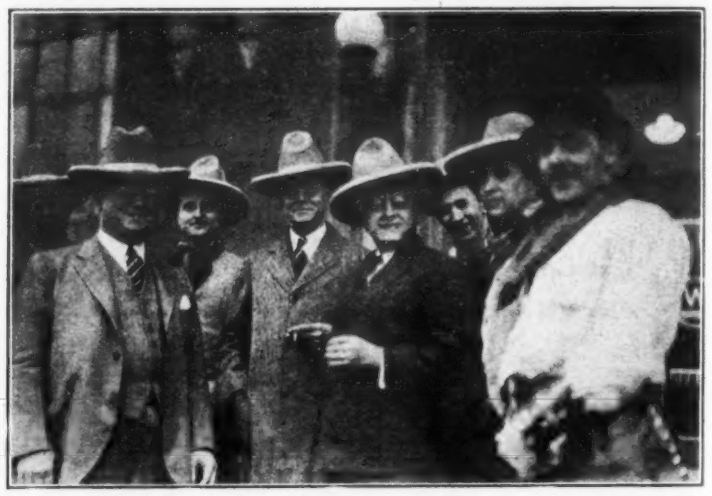
C. L. Townsend, Quota Buster from Chattanooga, Tenn., was making his first trip "Nawth" and delighted his hosts with that Tennessee drawl.



Carl D. Taylor, former head of the refrigeration division (in the foreground), and C. B. Graves, his successor (wearing derby), greet some of the Quota Busters.

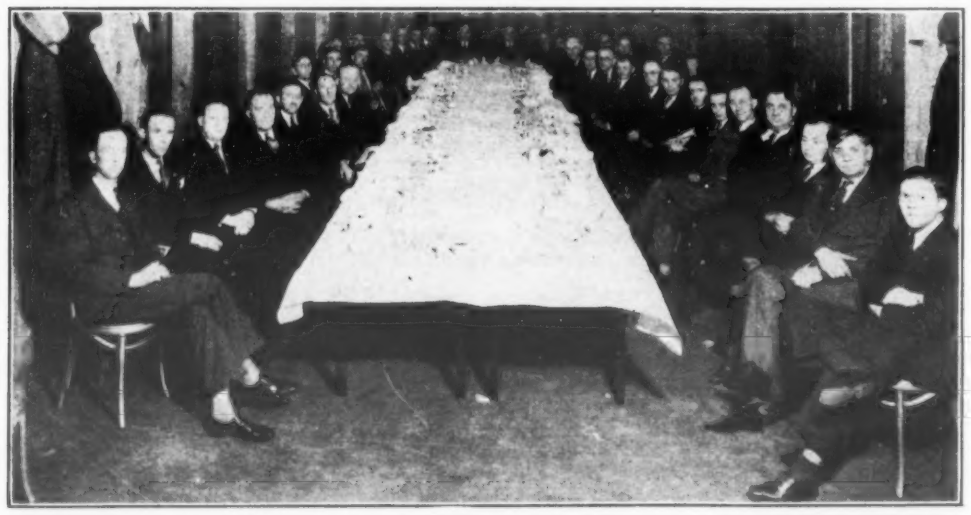
The Champion Looker

Walter Tieche of Milwaukee, arrived early one morning to be greeted by Fellow Quota Busters L. R. Spates, Alhambra, Calif.; J. L. Mullen, and C. L. Townsend. Tieche was named "best looking."



In which three of the ten-gallon hats change heads, coming to rest on Carl D. Taylor, C. E. Allen, commercial vice president of Westinghouse, and C. B. Graves.

Celebrate Quota Busting



Frigidaire salesmen in Davenport, with a number of dealers from the territory of the Electric Equipment Corp., distributor, celebrated passing the November quota by this banquet in the "Barn" of the Blackhawk Hotel.

Christmas in Honolulu

Bill Seroy (seated) surrounded by the Mayflo wer sales staff of the Thayer Piano Co., new Hawaiian distributor. Arthur F. Thayer, treas urer; Thomas Dahl, sales manager, and Phillip L. Kellerman, general mana ger, are directly behind Bill.

Sales Chiefs

P. L. Kellerman, president of the Thayer Music Co., Hawaiian distributor for Mayflower, with Robert Howe, representing Kierulff & Ravenscroft.

Executives and selling men of the refrigeration end of the Toledo Edison Co. pictured in front of the Kelvinator factory Dec. 28. The hatless gentleman in the center is Kelvinator district manager C. V. Calkins, one of the hosts to the party.

Two Honeys

The smiling girl pats a small "honey bear" comfortably ensconced on a Mayflower refrigerator exhibited at the Seattle Outdoor Exposition.

THIS ISSUE 12,000 COPIES

Engineering Section

IN TWO PARTS PART TWO

ELECTRIC REFRIGERATION NEWS

Registered U. S. Patent Office

The business newspaper of the refrigeration industry

ISSUED EVERY WEEK
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DETROIT, MICHIGAN, JANUARY 13, 1932

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TEN CENTS PER COPY
THREE DOLLARS PER YEAR

CARRIER TO COOL SANTE FE DINERS BY NEW SYSTEM

Steam-Vacuum Method Will Condition Air In 10 Cars

NEW YORK CITY — Ten diners equipped with the latest type railway air conditioning and cooling systems will be placed in operation in the near future by the Atchison, Topeka and Santa Fe Railroad on their transcontinental trains running through the West and Southwest.

The Santa Fe will be the first railroad to use the new Carrier air conditioning system which employs steam from the engine as the refrigerating energy and water as the sole refrigerating medium, thereby eliminating gaseous refrigerants.

More than a year ago the Santa Fe inaugurated the first transcontinental air conditioned diner on their crack train, "The Chief." It was the success of this air conditioning system in maintaining uniformly comfortable conditions during the heat waves of the past two summers, even across the burning Mojave Desert, which, company officials say, decided them to air condition the 10 additional diners.

Produces 80° F., 50% Humidity

The new cooling system will maintain a temperature not to exceed 80° F. with a relative humidity of 50 per cent, when the outside temperature is as high as 100° F. The temperature inside the car will thus be lowered at least 20° under extreme conditions, with corresponding moderation in the relative humidity, Carrier engineers claim.

The principle of the new air conditioning system is based on the law of physics that water will boil or give off its heat at comparatively low temperatures when the atmospheric pressure is reduced, they explain. Steam from the engine is forced under pressure past an opening in the upper part of a tank partly filled with water.

A vacuum is thus created within the tank, causing the water in the lower part to boil at about 50° F. The water as it boils gives off heat in the form of vapor, which is drawn out of the tank by the steam suction, thus lowering the temperature of the remaining water still further.

Distributed Through Ducts

This cold water from the steam refrigerator is circulated through cooling coils. The air passes over these coils where it is cooled and dehumidified. Concealed ducts permit the conditioned air to be distributed uniformly through the car.

All the air conditioning equipment, with the exception of the water storage tanks, will be placed in the roof of the car, so that no usable space will be sacrificed. Cleanliness of the air is assured by filtering all dust and dirt particles before it is taken into the car. Open windows for ventilation will be unnecessary, it is maintained.

In cold weather, the air conditioning system supplements the usual steam heating, and provides for circulation of the air.

Shipment of the first units of these 10 air conditioning systems for the Santa Fe, orders for which were placed with the Safety Car Heating & Lighting Co. of New York, has just been made from the shops of the Carrier Engineering Corp., Newark, N. J.

MAIZEWOOD FACTORY BURNS; RECONSTRUCTION PLANNED

DUBUQUE, Ia.—Rebuilding of the local factory of the Maizewood Products Corp., insulation manufacturer with offices in Chicago, is now under consideration. The factory was destroyed by fire on Dec. 7.

Plans and specifications are now being prepared by engineers of the Maizewood Products Corp. with the contract to be awarded as soon as possible.

In order to catch up with production it is planned to work 24 hours a day in the construction of the new building. The fire loss, covered by insurance, amounted to $104,000. It is expected, however, that a much larger sum will be required to carry out rebuilding plans.

Copeland Moving Into 2 New Additions

MT. CLEMENS, Mich.—The two new plant extensions to the factory of Copeland Products, Inc., Mt. Clemens, Mich., have been completed and the departments for which they were built are now moving into them. Both additions are of steel and masonry construction. They add approximately 20% to the floor space of the Copeland plant.

A separate building now houses the Copeland service school, service receiving, inspection, repair, parts and shipping departments. In the addition built on the plant several office departments are now located, including advertising.

The additions were built to provide manufacturing space for the increased production schedule for 1932. In 1931 net sales of Copeland refrigerators increased more than 19% and units shipments over 23%, according to Louis Ruthenburg, president.

MERCHANT & EVANS ANNOUNCES '32 UNITS

PHILADELPHIA—Four models will comprise the 1932 line of electric refrigerators supplied by Merchant & Evans Co., here, according to F. E. Wilson, refrigeration sales manager.

Numbered according to the square feet of shelf space afforded, the new models are termed Gyro 6, Gyro 11, DeLuxe 12, and DeLuxe 14. Gyro models feature the Merchant & Evans balanced direct drive gyroscopic compressor which Mr. Wilson claims keeps the motor in alignment from its own speed. Compressors in the larger DeLuxe models are type 100-D of design similar to the 1931 line. Motors are all 1-6 hp.

All models have the condensing unit in the lower part of the cabinet.

Gyro 6 is 42 in. high, 24½ in. wide, and 18 in. deep, and provides 6½ sq. ft. of shelf area. It can make 45 ice cubes. Gyro 11 is 57 in. high, 24½ in. wide, and 18 in. deep, with 11 sq. ft. of shelf area, and supplying 90 ice cubes.

The DeLuxe 12 model is 58¾ in. high, 28¼ in. wide, and 23¾ in. deep, providing 12 sq. ft. of shelf space. DeLuxe 14 is 58 in. high, 31¾ in. wide, and 24¾ in. deep, with 14 sq. ft. of shelf area. Both DeLuxe models manufacture 84 ice cubes, and have three inches of Dry-Zero insulation.

DeLuxe models are furnished with an automatic interior electric light.

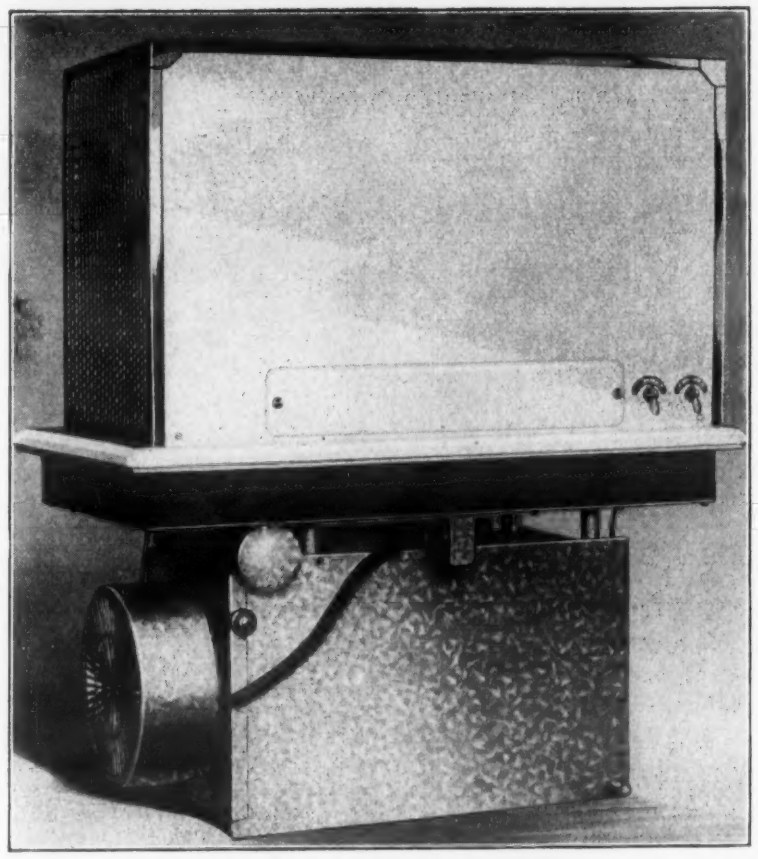
BUNDY TUBING DISPLAYED AT NEW YORK AUTO SHOW

DETROIT—A special exhibit of copper hydrogen electrically welded tubing manufactured by the Bundy Tubing Co. is being shown in the New York Automobile Show.

This tubing is used for gasoline and oil lines, hydraulic brake lines, conduit tubes, and windshield wiper tubes, according to A. F. Knoblock, executive vice president and general manager, in addition to condensers and evaporators for electric refrigerators.

"The process of copper hydrogen electric welding is one in which the copper welding is done by means of electric heat in a hydrogen charged furnace," he explains.

Modified 'Monitor Top'



General Electric's new model D-55 refrigerating unit for commercial cabinets and display cases employs forced-air circulation over the evaporator. Low temperatures and high humidities are claimed.

Insulation, Trucks On Detroit Program

DETROIT—R. H. Heilman of the Mellon Institute of Industrial Research, and J. L. Knight, General Electric engineer from the Erie, Pa., refrigeration plant, will talk on new developments in insulation in the first meeting of the series planned by the Detroit section of the American Society of Refrigerating Engineers, to be held Monday night, Jan. 18, in Webster Hall.

The usual 6 o'clock dinner will precede the opening of the meeting at 8 o'clock, according to John Wyllie, Jr., secretary of the group. C. C. Thomas president, will preside over discussions.

Mr. Heilman is an authority in the theory of insulation, Mr. Wyllie says, and will present the theoretical side; Mr. Knight will discuss Thermocraft.

REFRIGERATED TRUCKS

Developments in the design and operation of refrigerated trucks, and their field of application will be discussed in the next session of the Detroit A. S. R. E. section, Feb. 15. This meeting will consist of an open forum on the subject at 2:30 o'clock in the afternoon, and an evening meeting which will be addressed by a prominent engineer. F. M. Cockrell, publisher of ELECTRIC REFRIGERATION NEWS, will be chairman.

WESTINGHOUSE SHOWS 3-FT. REFRIGERATOR

MANSFIELD, Ohio—Designed especially for use in small apartments and kitchenettes, or for incorporation in kitchen cabinets, a new small Westinghouse refrigerator is being introduced to Westinghouse dealers this month.

The WL-30, as it is termed, is 36 in. high, 24 in. wide, and 18½ in. deep, with 3.31 cu. ft. of gross capacity or 2.85 cu ft. net food storage space. Shelf area amounts to 4.10 sq. ft. It is built in a steel cabinet finished outside in lacquer. The food chamber is formed of one piece porcelain, with rounded corners.

Two inches of Celotex insulate the cabinet. A standard 7-point Westinghouse control regulates temperatures and provides for defrosting.

A regulation ⅛-hp. hermetically sealed compressor running at 1725 r.p.m. serves the porcelain-on-steel, flooded type of evaporator. Two aluminum ice cube trays are supplied, offering 36 cubes, as well as one rubber ice cube tray.

Rubber tired casters 4⅛ in. high, and 5¾-in. or 9½-in. legs are available to replace the standard 1¾-in. legs.

BERKELEY FACTORY SITE BOUGHT BY STURTEVANT

BOSTON—A plot of land in Berkeley, Calif., has been purchased by the B. F. Sturtevant Co., with main offices here, on which a West Coast factory will be erected when business conditions warrant, according to E. B. Freeman, vice president.

Sturtevant products have been manufactured in a leased plant in Berkeley for about 20 years, Mr. Freeman says.

Through a Sturtevant subsidiary, the Cooling and Air Conditioning Corp. of New York, the engineering and installation work has recently been completed on the following western air conditioning contracts: Southern California Edison's new office building in Los Angeles the Los Angeles Stock Exchange, the Richfield Oil Building, the Banks-Huntley Bldg., West Coast Theatres, and the Phoenix National Bank. All of these employ the Sturtevant rotary compressor.

NORGE CONDENSERS BUILT BY LONG MFG. CO.

DETROIT—Norge condensers are now being manufactured by the Long Mfg. Co., a division of Borg-Warner which builds car heaters, radiators and other automotive parts. The condensers are fabricated of copper tubing and copper fins, and are solder-dipped, Frank St. Johns of the company states.

Copeland Expands

New Copeland factory annex in which shipping, inspection, repair, parts, and service departments and the service school are housed.

AIR CONDITIONING CHIEF TOPIC FOR JOINT MEETINGS

Refrigerating, Heating Engineers To Meet In Cleveland

CLEVELAND—Mutual interests of refrigerating engineers and members of the American Society of Heating and Ventilating Engineers will be joined for a discussion of air conditioning progress here the week of Jan. 25 when the A. S. R. E. and A. S. H. V. E. meet jointly in the Cleveland Auditorium.

Held concurrently with the meetings will be the Second International Exposition in which refrigeration machinery, air conditioning equipment, and heating and ventilating apparatus will be exhibited.

Arrangements for the refrigeration meetings are being made by the Cleveland section of the A. S. R. E. The committee includes D. F. Keith, chairman, D. H. Scott, H. B. Matzen, J. A. Shurman, H. E. Bollinger, W. M. Timmerman, and E. D. Smith.

The program committee includes Glenn Muffly (president-elect of the society), chairman; G. E. Chamberlin, St. Louis; B. E. Seamon, Chicago; Crosby Field, New York; A. J. Ferretti, Boston; R. T. Frazier, Chattanooga; E. M. Dodds, Kansas City; F. R. Zumbro, Waynesboro, Pa.; John Wyllie, Jr., Detroit; Cyril Leech, Philadelphia; and David L. Fiske, New York.

Official meetings begin Monday night, Jan. 25, when the A. S. R. E. council meets in the parlor floor of the Hotel Cleveland. General sessions start Tuesday with the formal opening of the convention at a noon luncheon by President A. H. Baer.

Mr. Baer will also preside over the technical session which opens at 2:30 o'clock in the hotel ballroom. J. L. Gregg of the Battelle Memorial Institute, Columbus, Ohio, is to talk on "Properties and Use of Metal Foil Insulation," followed by these speakers and subjects:

Dr. A. W. Ewell of the Worcester Polytechnic Institute, Worcester, Mass., on

(Concluded on Page 2, Column 1)

DETROITERS MAY FLY OVER

The Trans-American Air Lines have offered one and one-half fare rates to Detroit delegates making the round trip, if 12 or more decide to make the trip by airplane. Those interested should call George Bright immediately.

BRIGGS BODY ENTERS FIELD WITH CABINETS

DETROIT—Announcement of a contract with the Westinghouse Electric & Mfg. Co. to supply 7.3-cu. ft. household refrigerator cabinets signalizes the entrance into the field of refrigeration of the Briggs Mfg. Co., large Detroit manufacturer of bodies for Ford, Chrysler, and other automobile firms.

The Westinghouse order calls for delivery beginning March 1 of approximately 10,000 cabinets per month, including both the lacquer and porcelain finished exteriors specified, according to J. A. Callahan, manager of the commercial department of the Briggs organization.

Cabinets will be built and shipped complete with wire shelves and ice cube trays to the Westinghouse distributors who will install the refrigerating machines, he reports.

The cabinets will be built entirely of steel, Mr. Callahan announced, and will be made on modern production lines which are being established in one of the Briggs plants for refrigerator cabinet manufacture.

OAKLAND MARKET INSTALLS 3-TON REFRIGERATOR UNIT

OAKLAND, Calif.—Installation of a 3-ton refrigeration unit has been made in the new Grand-Webster Market here by the Cyclops Iron Works of San Francisco. The installation serves seven storage boxes and counters.

AIR COOLING SUBJECT FOR JOINT MEETING

(*Concluded from Page 1, Column 5*)

a "Review of Refrigeration and Food Practices in Europe"; W. J. Hukill of the Bureau of Agricultural Engineering of the U. S. Department of Agriculture on "Refrigerator Car Temperatures"; and Edward Hughes of Copeland Products, Inc., Mt. Clemens, Mich., on "The Refrigerating Machine as a Production Problem."

Tuesday night will be devoted to a hearing of papers by university student candidates for the A. S. R. E. prize. H. Harrison of the Brunswick-Kroeschell Co., New Brunswick, N. J., will preside, and W. E. Wickenden, president of the Case School of Applied Science, Cleveland, will talk on the "Relation Between the Colleges and Technical Societies."

Papers will be given by the following students: H. F. Irving of the University of Illinois, Urbana, "Horsepower per Ton of Refrigeration on Small Ammonia Compressor"; L. D. Frazer, Jr., of the Massachusetts Institute of Technology, Cambridge, Mass., "The Vapor Pressure of Ammonia Above Solutions of Ammonium Thiocyanate"; and Charles Lucas of the University of Tennessee, Knoxville, "Properties of Steam and Air Mixtures Below the Ice Point."

The subject of air conditioning takes the center of interest at 10 o'clock Wednesday morning when the joint session with the A. S. H. V. E. opens in the Cleveland auditorium with W. H. Carrier, president of that society, in the chair. Subjects to be treated, and speakers follow:

"Field Studies of Office Building Cooling," by S. S. Canford, E. P. Wells, and J. H. Walker; "Acoustical Problems in Heating and Ventilating Buildings," by V. O. Knudsen; "Changes in Ionic Content of Air in Occupied Rooms Ventilated by Natural and Mechanical Means," by C. P. Yoglou, L. C. Benjamin, and S. P. Choate; and "Heat Capacity of Building Walls," by F. C. Houghton.

The afternoon session will be presided over by A. W. Oakley, and will include the following papers and speakers: "Use of Gas in Heating and Cooling of Homes," by E. D. Milener of the American Gas Association, New York; and a "Survey of Ice for Air Cooling Applications," by R. T. Brizzolara, consulting engineer of New York.

Wednesday night refrigerating engineers, many with their wives, will gather for the annual banquet and jamboree at 7 o'clock in the ballroom of the Hotel Cleveland.

Thursday morning attention of the two societies will again be focused on air conditioning when they meet in the Cleveland auditorium with Mr. Baer in the chair. Topics and speakers are listed below:

"Application of Electric Refrigeration to Heating and Cooling of Homes," by A. R. Stevenson, Jr., F. H. Faust, and E. W. Roessler of the General Electric Co., Schenectady, N. Y.; "Biological Aspects of Thermal Engineering," by Dr. S. C. Prescott, head of the department of biology and public health at the Massachusetts Institute of Technology, Cambridge, Mass.; and "Air Conditioning as Applied to Cold Storage, and a New Psychrometric Chart," by Claude A. Bulkley, chief engineer of the Niagara Blower Co., New York.

Refrigerating engineers will return to the Hotel Cleveland ballroom for the afternoon session over which Mr. Oakley will preside. Subjects and speakers will be:

"Two-Speed Synchronous Motors; Characteristics and Application," by R. C. Allen of the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.; "Natural Gas in the Refrigerating Plant," by F. W. Laverty, Clark Bros. Co., Olean, N. Y.; and "Oil Engine Compression Costs," by C. R. Neeson of I. P. Morris & De Le Verngе, Inc., Philadelphia.

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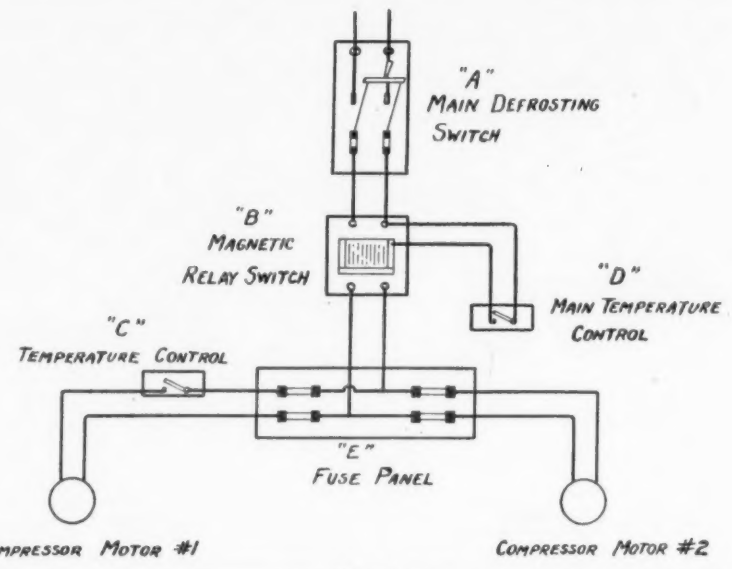
SERVICE MEN'S FORUM

A Column Devoted to the Problems of Service and Installation Men

To encourage the exchange of practical ideas in the service and installation of electric refrigerators, this department is conducted as an open forum for service and installation men. You are invited to send in suggestions to the Engineering Editor, Electric Refrigeration News, 550 Maccabees Bldg., Detroit. Three dollars, the price of a year's subscription, will be awarded for each new idea used in this column.



By blocking one control and using this hook-up, proper defrosting was obtained with both machines.

* * *

TELLS HOW TO DEFROST WITH TWIN COMPRESSORS

PAUL B. Hughes of the Refrigeration Training School & Shops, Pittsburgh, an earlier contributor to this department, tells about a service problem dealing with the operation of two ½-hp. compressors serving four finned cooling coils of the flooded type, which was recently called to the attention of him and his associates.

Two coils were installed on each compressor, all four coils being used on one cooler. Satisfactory results in automatic defrosting could not be obtained, and upon investigation it was found that when one machine was off the line trying to defrost, the other would start up on the "on" cycle.

This caused ice to form on each set of coils, finally blocking circulation and resulting in poor refrigeration. The solution outlined below (and diagrammed above) was tried, and worked.

By employing the electrical circuit shown above and blocking temperature control switch "C" on that compressor, but not preventing the head pressure device from functioning, proper defrosting cycles were secured for both machines.

Temperature control "D" (which may be either pressure or thermostatic) actuates the magnetic relay which starts and stops both compressors at the same time.

Compressor No. 1 will cut out in case of high head pressure, allowing No. 2 to continue operation. High head pressure on No. 2, however, will cut out both compressors through the relay.

Each motor has its own electrical protection on fuse panel "E." By taking out the fuses of either circuit, one compressor can be used alone on its set of coils.

Mr. Hughes believes this hook-up is especially adaptable to chain grocery stores and meat markets in which the refrigeration load varies. It is not adaptable to polyphase motors unless another relay is used in place of the fuse panel "E."

Western Firm Develops Aluminum Solder For Pipes

GLENDALE, Calif.—The Allied Research Laboratories, here, has developed a solder called "Alumaweld," which it claims will repair cast iron, steel, aluminum, pot metal, and die castings.

In pipe repairing, the broken pipe is cleaned and then heated with an ordinary soldering iron.

Then the solder, with special flux, is applied, to complete the repair. Average pipe repair jobs take from 10 to 12 minutes, and are done without tearing down the pipe system, according to engineers of the company.

Alumaweld is now being used in the repair of steam and water pipes, heating plants, crank cases and cylinder heads on automobiles and tractors, aluminum pots and pans, vacuum cleaners, and washing machines.

Alumaweld, its proponents claim, actually breaks down the structure of the metal being repaired, fusing or welding with it, to form a solid piece. It is strong, quite ductile, and will take a polish which may be chromium-plated.

Workman using Alumaweld on pipe.

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A careful survey of the entire domestic-refrigerator field preceded the announcement of the new G-E control for domestic electric refrigerators. Here it is . . . control of the highest quality . . . including every advantage demanded by refrigerator designers and manufacturers.

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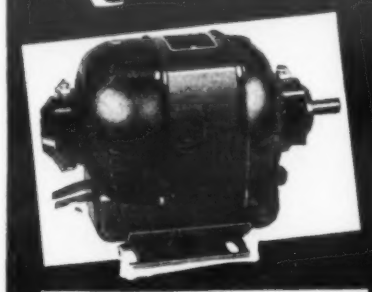

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because it is a brush-lifting motor and free from brush noises—

because generous bearing areas and self-filtering lubrication eliminate bearing troubles.

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SERVICE HINTS

By FRANK W. GRAY

SOMEONE said that a refrigeration service call is only as difficult as the service man makes it. The truth of this saying is shown in the fact that it is usually more difficult for the average service man to learn to diagnose the cause of defective operation, than for him to remedy the trouble once it is located. Common sense and reasoning will save the service man many a false start with the wrenches and gauges.

For instance, take one of the commonest service complaints which comes in from users of the standard reciprocating type machine operating on a flooded single or multiple system. "The compressor runs continuously but the cooling coils do not frost and refrigeration is below normal."

Since there is insufficient refrigeration, it naturally follows that there is a shortage of refrigerant evaporating in the coil. Some service men would immediately assume that this meant a leak in the system, and begin the laborious process of testing for leaks in the tubing lines before carrying their diagnosis further.

There are other defects, however, which might cause this same symptom of poor operation, such as a float valve in the coil stuck open, a defective discharge or flapper valve in the compressor, a leaking gasket if the compressor has multiple cylinders, or perhaps a badly oil-logged cooling coil.

Experience teaches the service man that if the suction line is warm it indicates a lack of refrigerant in the system. A hissing sound at the boiler head also confirms this diagnosis of a refrigerant starved system.

If, on the other hand, the suction line is chilled, the difficulty is probably a float valve stuck open, which allows the refrigerant to circulate through the system in a liquid form without expanding enough to give refrigeration.

An oil-logged coil is indicated by the absence of frost on the lower part of the coil, while if the difficulty is in the compressor valves, a head pressure gauge will quickly disclose a lack of pressure.

The above procedure is familiar to most service men, yet such a complaint is too often mishandled, due to the fact that the man on the job does not make a complete analysis of the difficulty before wasting several hours of valuable time.

Overloading Lines

Refrigeration service men often save time by hooking up the motors of refrigeration machines to the household distribution circuit which has lights on it.

As a rule, fairly small wire has been used in such a circuit, and it frequently follows that the owner complains that his lights flicker when the machine starts, and remain slightly dim while it is running.

The small wire has a comparatively high resistance which causes a voltage drop when the motor is running.

Wherever possible a separate circuit should be run to the motor, but in case it is not convenient to do so the size of the wire should be checked, the maximum run of No. 14 wire being not much over 100 ft., No. 12 wire 175 ft., and No. 14 wire not much over 300 ft. Local wiring codes, may, of course, modify the maximum run allowable.

Refrigeration users sometimes complain that their machines cause radio interference. A normally operating electric motor of the standard type should not cause such interference, other than a low click when the machine turns on or off, similar to the click caused by a light switch in the house.

If the service man discovers by actual test of the radio that the refrigeration machine is causing the difficulty, the brushes and commutator of the motor should be thoroughly cleaned, and the contacts of the brushes with the commutator adjusted.

The interference is usually caused by sparking between the brushes and commutator of the motor. In some cases it is advisable to ground the motor to a cold water pipe.

Suction Line Strainers

In hooking up large commercial or apartment house systems it is a wise precaution to put double strainers in the liquid line. A loop of the liquid line should be made in two sections, with a strainer on each side of the loop, and flare tees making up the connection, thus placing the strainers in parallel instead of in series.

The reason for this is that if one strainer plugs up, the other one will, in all probability remain open, thus eliminating any suspension of operation. A plugged-up strainer in the liquid line might cause a complete shut-down of the refrigeration system, which in commercial jobs sometimes entails a loss of foodstuffs.

While such shut-downs due to this cause are not frequent, it is one of the ironies of refrigeration service that they usually occur on a Saturday night or Sunday when discovery is postponed until damage is done.

Rugs or furniture in users' homes have sometimes been damaged, due to the fact that installation and service men do not possess the proper facilities—or are careless in handling them—when purging or discharging sulphur dioxide machines.

A bucket containing lye water is recommended for the discharging of sulphur dioxide, the lye water neutralizing the refrigerant.

The bucket should not be full enough to permit the splashing of the lye water, due to the bubbling action of the refrigerant reacting with the caustic soda, and the ¼-in. discharge tubing usually used for the purpose should be looped at right angles so that it will fit on the bottom of the bucket.

If the end of the discharge line is closed, and several small holes are drilled around the circumference of the loop on the bottom of the bucket, the gas will escape with even distribution which will insure its being completely neutralized.

The estimation of heat losses and refrigeration capacities in room cooling is one of the most difficult phases of installation engineering to define. The reasons for this are obvious: nearly every room is different in structure, with varying openings and insulation values in the walls.

Certain general principles may, however, be observed by service men in making such installations. To begin with, it is not advisable to lower the temperature of a room used for living purposes more than 10° F. below prevailing outside temperatures.

People passing back and forth from rooms in which the temperature is too low, may contract colds or similar ailments. It must be remembered that room coolers usually reduce the humidity content of the air about 10 per cent, which has an equivalent effect upon the body of a 2° F. temperature drop, and also that the increased air circulation in the room will have the effect of another 2° temperature drop, the last two factors, while not discernible on the thermometer, bringing the total temperature reduction in effect upon the body sense to about 14° F.

It is well also to avoid a pronounced draft of cooled air wherever possible, guiding the air stream along the wall to circulate around the room rather than directly across it.

The height of a room in which a room cooling installation is placed makes very little difference, since the zone of effective cooling will probably not in any event exceed a height of six to 10 ft. above the floor.

The air should not be changed in a room containing a room cooler more than four times an hour, since a room containing 300 sq. ft. of floor space will require the cooling of approximately 3,000 cu. ft. of air every time the air is changed, and most room cooling installations, employing 1 or 1½-hp., should not be expected to cool more than 500 cu. ft. of air a minute.

In most room cooling installations the compressor will operate continuously, and should, of course, be placed in the basement or in some other space where the heat of condensation will not be communicated back to the air to be cooled.

OFFICIAL EXPECTS CHANGE IN WORLD COPPER MARKET

WASHINGTON, D. C.—Because of increased production in some of the older areas and the starting of production in new regions, the world's flow of copper in international trade may be altered considerably in the near future, J. W. Furness, chief of the minerals division of the Department of Commerce, stated orally Jan. 7.

An unprecedented development of the world's resources of copper in recent years and the discovery of new sources of this metal, he said, have added materially to the world's copper ore reserves. The probability of the alteration of the flow of copper in international trade was explained by him as being based upon the decreased cost of producing a pound of copper as a result of the rapid advance in technology.

In 1926 the domestic ores in the United States furnished approximately 54 per cent of the world's production of copper, Dr. Furness pointed out.

NEW INDEPENDENT SERVICE STARTED IN SPRINGFIELD

SPRINGFIELD, Ill.—Edward P. Greig, formerly with the Schlitt Hardware Co., Kelvinator dealer, has organized a firm which will service and install all types of electric refrigerators. The new Edward P. Greig and Co. will furnish 24-hour service. Associated with Mr. Greig is J. J. Kline, another former Kelvinator man.

The company will operate from the Schlitt Hardware Co., 423 E. Adams St., with a stock of parts and accessories for many makes of electric refrigerators.

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No. 858 Model LL-1 Mercoid Control designed particularly for refrigeration work. It is applicable to the control of air temperature and also for water cooling, milk cooling, ice cream cabinets, etc. Regularly furnished with 4 ft. tube, bulb 3" long ⅜" O. D. Supplied with two temperature ranges either minus 10° to plus 25° or plus 10° to plus 50°. Can be adjusted for differential as close as 2½° or as wide as 12°. Changing the adjustment for cut-in point does not change the adjustment for cut-out point.

No. 855 Mercoid Thermostat. For control of air temperatures. This is applicable to meat boxes, florist boxes, etc. It is also widely used as a low limit control to prevent excessive low temperatures where pressure control is employed. Furnished with temperature range 25° to 60°. Differential approximately 2½°.

No. 682 Arco Solenoid Valve. To control flow of water or refrigerant. Can be supplied for pressures up to 200 lbs. and with port openings of various sizes. Threaded connection ⅜". Available for all electric currents—two wire circuit—valve closes on failure of current.

No. 848 Mercoid Dual Controls—combine automatic control either by low side pressure or by temperature with high pressure cut out. Illustration shows pressure control. Furnished to control between 20" vacuum and 15 lbs. Temperature instrument has 4 ft. tube and thermostatic bulb. Can be supplied for any temperatures as low as minus 30°. High pressure cut out can be set for pressures up to 160 lbs.

All of the Mercoid Controls shown here operate on the well known Mercoid principle—no exposed arc—no corrosion of contacts. All Mercoids will carry motors up to 1 H. P. without relays.

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ELECTRIC REFRIGERATION NEWS is published *every week.* The Engineering Section (green paper) appears every *two weeks* as Part II

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Humidification

BUILT to accomplish one of the major purposes of complete air conditioning systems, a number of humidifying devices have recently been placed on the market to increase the humidity in homes and tenanted buildings during the winter months. Also provision for humidifying is now made in a number of central heating systems.

The belief of some medical men that dryness of winter air is one of the important factors contributing to the prevalence of colds and other respiratory disorders in the winter has compelled increased attention to humidity control for all seasons.

The common remark, "It's not the heat, it's the humidity," seems to be as true in the winter as in the summer. Both temperature and humidity conspire against man, and usually need correcting.

Lack of Understanding

The average person has a somewhat sketchy understanding of humidity, partly because he is told that untreated air contains *too much* moisture in the summer, and *too little* in the winter.

To add to his confusion, he is told that expressions of absolute humidity alone are not significant, but that to estimate the health and comfort qualities of air one must consider *relative humidity,* a determination which involves the ratio of variable quantities.

Humidity is not difficult to understand if one considers its fundamental nature. Humidity is simply water vapor (steam or moisture) mixed with the air. Air's ability to hold this moisture is dependent on the temperature, the greater the temperature the more moisture it can hold.

Definition of Terms

Air becomes *saturated* at a given temperature when it contains all possible moisture. Condensation occurs when the temperature of the air is lowered (reducing its moisture-holding ability), or when moisture is added beyond the saturation point.

Absolute humidity is defined as the number of grains or pounds of water vapor contained by one cubic foot of a mixture of air and vapor at the observed temperature.

Relative humidity is the ratio of the actual amount of moisture, in grains or pounds, contained by a cubic foot of the mixture (in other words, the absolute humidity), to the amount which a cubic foot would hold at the same temperature if saturated. It is an expression, usually in percentage, of the moisture air *does hold* at a given temperature, to the amount it *could hold* at that temperature.

Skin, Respiratory Effects

Air at a temperature of 70° F. and a relative humidity of 20 per cent or less is noticeably dry, desiccating the skin and mucous membranes of the upper respiratory tract, technicians report. Skin evaporation is dependent on temperature, humidity, and air movement.

To reduce this excessive skin evaporation of winter air, with its resultant feeling of cold and bad effects on the human organisms, equipment may be installed which will humidify the air. Water pans, vapor sprays, and wetted rotating disk devices are employed to supply humidity to the air.

Carrier Engineering Corp., one of the air conditioning pioneers, explains the effect of heating winter air without adding moisture by a specific problem:

Simple Explanation

"Take a pound of air at 31° F. containing 18 grains of moisture. Its relative humidity is 70 per cent. If this air is heated to 50° F. without adding moisture, the relative humidity is lowered to 35 per cent. If the same amount of air is heated to 70° F. (ordinary room temperature) and no moisture is added, the relative humidity becomes 17½ per cent—which is too low."

Authorities have not yet come to any general agreement regarding the exact humidities most conducive to human health and comfort, although they do point out that humidity extremes are bad.

Lacking a humidifying outfit, however, indoor conditions in the winter are always apt to be too dry, students of the subject find—a condition which is not helped materially when a person attempts to counteract the feeling of coldness, which too-dry air causes, by increasing the temperature.

Limits of Humidification

The upper limit practical in winter humidification is usually established by excessive frosting of window glass. It has been found, for instance, that when a zero temperature prevails outdoors, a 60 per cent relative humidity inside is just below the frost-producing stage even with storm windows up.

Tests made by the American Society of Heating and Ventilating Engineers in determining the well-known comfort zone indicate that a desirable condition within the zone is a temperature of 70° F., and a relative humidity of from 35 to 40 per cent with low air velocities.

Humidity control is an important phase of air conditioning, particularly with regard to making living conditions more healthful in both summer and winter. Because of its inherent desirability, the attention it is now receiving should produce equipment that will return profits to the manufacturer.

GLEANINGS

FROM RECENT PERIODICALS

ANDREW CARNEGIE claimed he made his greatest progress in periods of business depression and in a similar way some manufacturers today are finding that the business recession is not without compensating factors. In this connection it is pertinent to recall that the wasteful and extravagant methods of manufacturing engendered during the war rush were brought to an abrupt halt during the depression of 1921 and the resultant economies paved the way for the succeeding years of prosperity.

Companies that have succeeded in overcoming the effect of generally reduced consumer demand may be grouped roughly in three classes:

1. Those engaged in a field which has expanded either because of, or in spite of, depression.
2. Those which have added new lines, new products, new ideas, to compensate for a decline in sales in their regular established lines.
3. Companies which have reduced overhead or effected other production economies in a manner to make operation profitable on a lower output.

Typical of the first group is the case of the Silent Glow Oil Burner Corp., Hartford, Conn. The principal product of this manufacturer is a range burner designed to convert a coal or wood stove into an oil stove. This particular field was enjoying a gradually increasing demand before the depression gripped the country, but the general retraction in other lines instead of diminishing sales of range oil burners, had a tendency to increase the demand for these burners because of the economies offered by them.

Probably most of the companies operating successfully today come into the second group. One such company is the Caspers Tin Plate Co., Chicago. This company, realizing that the demand for its regular line of plain tin plate was somewhat restricted, decided to enter the lithographing field, believing that such a step would increase the scope of its business and result in an increased tonnage of tin plate.

The result of this has been to create, through attractive display and package appeal, a better demand for their customers' goods and consequently for their own product.

A typical example of the third group of manufacturers, i.e, those which have reduced overhead or achieved other production economies so that they can operate profitably on lower output, is seen in the case of the United Aircraft & Transportation Corp., Hartford, Conn. The various units of this organization have been consolidated at East Hartford, Conn., with marked improvement in operating efficiencies. —Herbert R. Simonds, *Iron Age*, Jan. 7, 1932.

Sitka Spruce for Cabinets Kiln Dried, Shipped in Water-Sealed Cars

PORTLAND, Ore.—Sitka spruce supplied to refrigerator cabinet manufacturers by the C. D. Johnson Lumber Co., with offices here, goes through a highly specialized drying process, and gets special transportation in freight cars sealed with waterproof paper so that its moisture content will not exceed the guaranteed nine per cent upper limit on arrival. At the present time shipments to refrigerator manufacturers in Michigan and Ohio are being delivered in nine days.

The C. D. Johnson Lumber Co. is a subsidiary and the exclusive sales representative of the Pacific Spruce Corp., Toledo, Ore. When operating to capacity it produces approximately 1,000,000 ft. of lumber daily. It estimates that it will ship in excess of 25,000,000 ft. to the refrigeration industry alone during the coming year. In addition to Sitka spruce it also manufactures large quantities of yellow fir and western hemlock.

Sitka spruce is found only on a narrow strip on the western slope of the Coast Range mountains extending from northern California far into Alaska. The Pacific Spruce Corp. properties were developed by the Spruce Production Division of the United States Army during the World War, for the production of airplane lumber, and are in the heart of one of the heaviest stands of spruce timber in the world.

Trees Get 180 Ft. High

Individual trees reach a height of 180 ft. and occasionally attain a diameter of 10 ft. Even in these large sizes the tree is practically all heart wood and the small amount of sap wood that does occur is all removed with the slab when sawed, the lumbermen claim.

Sitka spruce is non-porous, long fibred, tough, strong, light weight, light colored, odorless and tasteless, and is noted for its freedom from warping and twisting, company officials claim. Tests on Johnson's Sitka spruce, made recently by one of the large manufacturers of automobiles, show the following results:

Glue-holding power test—600 to 669 lbs. per sq. in.

Screw-holding power test—600 to 735 lbs. to pull a 1¼-in. screw sunk ⅞ in. into wood.

Compression test — perpendicular to grain, 10,700 to 13,000 lbs. per sq. in.; parallel to grain 900 lbs.

Used for Airplane Stock

Many airplanes and fine ladders are built almost exclusively of Sitka spruce because of lightness, toughness, and strength. Piano sounding boards, pipe organ pipes, violin and guitar faces, ironing boards, table tops are built of spruce on account of its gluing qualities and its freedom from internal stresses which cause warping and twisting. Sitka spruce is practically free from pitch, acids and resins, which make it an excellent wood for lacquering, sealing or painting. It is used extensively in the manufacture of lacquered kitchen cupboards, furniture, boats, overhead garage doors and house siding.

The specific gravity of the green wood ranges from .34 to .65, but will average between .35 and .40[1]. The moisture content of the heart wood will range from .40 to .50 of the oven dry weight. Sap wood has been found to contain as high as 190 per cent moisture content.

The mechanical properties of any wood vary with the specific gravity and moisture content. The United States Forest Products Laboratory found the radial shrinkage in Sitka spruce to be 4.5 per cent, tangentially 7.4 per cent, and volumetric 11.2 per cent when drying from green to an oven dry condition.[2]

When Sitka spruce is dried to a moisture content of 6 per cent to 9 per cent on the basis of oven dry weight, approximately 70 per cent of all shrinkage possible to take place has been accomplished. At this point reobsorption of moisture will occur at ordinary room temperatures and humidities, insuring no further shrinkage when put to use, officials state.

EFFECT OF MOISTURE CONTENT ON STRENGTH OF SITKA SPRUCE

Moisture content exceeding	27%	20%	15%	10%	5%
Modulus of rupture	6,200	7,800	9,200	11,800	12,700
Stress at elastic limit in bending	3,700	4,500	5,500	6,800	8,300
Maximum crushing strength, parallel to grain	3,050	4,200	5,200	6,400	8,000
Elastic limit stress compression perpendicular to grain	350	400	500	700	900

The following table[3] shows the effect of moisture content on the strength qualities of Sitka spruce in lbs. per sq. in.

In addition to increasing the strength of the wood, proper drying eliminates the possibility of warping, twisting or decaying, materially reduces the weight, and makes gluing possible, it is claimed.

The requirements for proper drying are a correct combination of heat, humidity, and circulation. Heat hastens the transfusion of moisture from the inside to the surface of the piece and is required to separate water from wood below the fibre saturation point.

Correct humidity is required to reduce to a minimum checks, casehardening and to hasten the transfusion of moisture to the surface. Positive, even circulation is essential in all corners of the kiln in order that the required heat units will be transferred to the lumber, Johnson technicians point out.

22 Dry Kilns Operated

At the Pacific Spruce mill, 22 modern external blower kilns with a holding capacity of approximately 1,000,000 ft., operate continuously under the careful eye of Mr. Glenn Voorhies, graduate engineer from the Oregon State College.

Each kiln is equipped with an air operated temperature-humidity controller and recorder which gives an accurate control of the drying schedule which is worked out by a process of experimentation. Schedules are not infallible, and the condition of the stock must control the operator's drying routine.

Each kiln is tested at intervals with a smoke test of tetanium tetrachloride in order to be sure that proper circulation is being maintained. If dead spots appear, corrective measures are immediately taken to secure circulation of approximately 150 lin. ft. per minute.

When sawing logs, the green boards produced vary greatly in density. In addition, they also have a variation in moisture content even when sawed from the same log.

When the green lumber is sent direct from the saw to the kilns it is necessary to keep it in the kilns long enough to dry thoroughly the wettest piece to a low moisture content, which means that

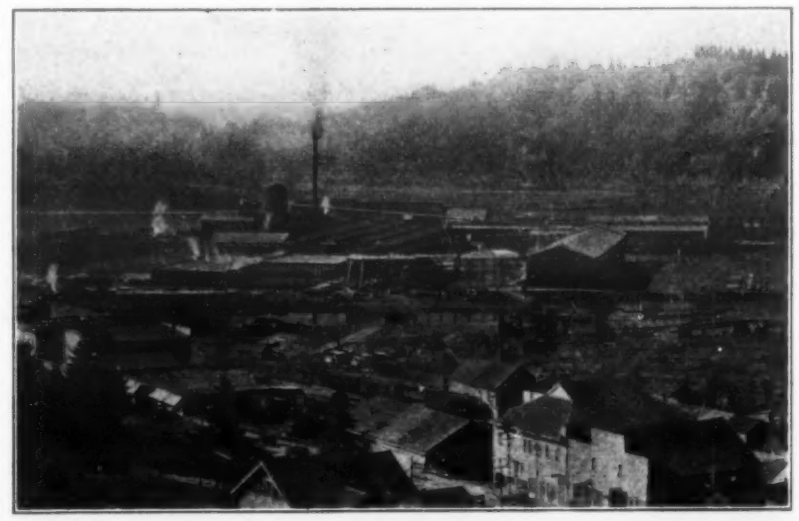
(Concluded on Page 5, Column 1)

[1]Economic Woods of the United States, 2nd Edition, 1919, by Samuel J. Record.

[2]The Kiln Drying of Lumber, 1926, by Arthur Koehler and Ralph Thelan.

[3]Dudley F. Holtman, Wood Construction, Principles, Practice, Details. National Committee on Wood Utilization, U. S. Dept. Commerce, 1929.

Spruce Mill



Sawmill of the Pacific Spruce Corp., Toledo, Ore., showing dry kilns, stacker house, mill, and extensive shipping facilities.

Timber for Refrigerator Cabinets

Butt end of a huge 10-ft. spruce cut by the C. D. Johnson Co. for milling into stock for household and commercial refrigerator cabinets.

* * *

SITKA CABINET TIMBERS GET SPECIAL TREATMENT

(Concluded from Page 4, Column 4)

the bulk of the stock is in the kilns much longer than necessary.

In order to insure quick delivery, the company saws, grades, and stacks millions of feet of Sitka spruce of the grades and sizes used by the refrigerator industry, on its yard.

After 60 to 90 days (depending on weather conditions) the stock equalizes its moisture content of approximately 20 per cent.

As fast as shipping dates come due the lumber is transferred from the yard to automatic stackers, thence to the kilns. This stock now drys quickly, as will be seen by the following comparison:

	Yard Stock	Green
4/4	2½ days	4 days
5/4	3 "	5 "
6/4	4 "	6 "
8/4	5 "	8 "
10/4	10 "	14 "
12/4	12 "	17 "

The following drying schedule shows the procedure followed when drying 2-in. green spruce.

The first column indicates the number of hours the stock has been in the kiln. The dry bulb column shows the temperature of the kiln at a given time. The wet bulb temperature is the temperature effected by the depression of the dry bulb, due to cooling effect of the atmospheric moisture. The relative humidity is the amount of moisture in the air at any given temperature, expressed in percentage of the amount that the air will hold at that temperature.

Hours	Dry Bulb	Wet Bulb	Relative Humidity
0	170	152	63
24	180	150	47
72	190	150	37
120	200	150	30
168	210	150	24

At this point in the schedule a test is generally made to inspect the condition of the core of the piece. If below 16 per cent, the charge is allowed to continue on the same schedule until it reaches six per cent or seven per cent. The charge is now steamed for a period of from 12 to 20 hours, depending on the condition of the stock, and is then removed from the kiln. This final steaming treatment is necessary to relieve any stresses set up during the drying and to even up the moisture content between the core and shell of the various pieces.

All other thicknesses are dried in the same manner, but each thickness is dried on its own schedule, which varies widely in the sizes from 4/4 to 12/4.

After the lumber is again thoroughly tested for dryness, it is sent to the automatic unstacker where it is again sorted and graded. As fast as this is accomplished it is sent to the planing mill where it is dressed and immediately sent to the shipping sheds. At this point each piece is again graded and tested for moisture content.

Any piece not fully up to grade or testing less than nine per cent moisture is rejected and laid out of the shipment. The Heppenstal electric moisture meter is applied to every piece, which reduces the possibility of including any boards that are not thoroughly dry.

All doors and other openings in the cars are sealed with waterproof paper to keep the lumber dry and clean in transit. Each carload gets fast service, and is traced to final destination.

Lumber for the refrigerator manufacturers, where low moisture content is required, is never permitted to remain in the sheds after it has been dried, as it will quickly equalize its moisture content to that of the surrounding atmosphere, Johnson engineers explain.

GENERAL ELECTRIC OFFERS NEW GASKET COMPOUND

SCHENECTADY, N. Y.—A new gasket material which is supposed to be moisture-proof and oil-resistant, has been announced by the General Electric Co. This material, known as No. 1000 compound, is recommended especially for applications where the primary purpose of the gasket is to exclude moisture.

It is a white, odorless, sulphur-free rubber compound, available both in sheets and moulded shapes. It is tough and strong, flexible, requires no sticker, and can be used repeatedly in testing work, as well as in permanent joints.

Mildly alkaline solutions, such as derived from Portland cement, or dilute acid solutions have no apparent effect on this material, it is claimed.

This material has been found especially useful in making joints in porcelain and metal assemblies, the announcement maintains. It has been used also for subway transformers, covers of switchgear, factory treating tanks, factory testing of transformer radiators, and sealing of gas-filled machinery.

THEATRE BUYS WATER COOLER

OAKLAND, Calif.—The Pollard Seagrave Co., local Frigidaire dealer, has installed water cooling equipment in the new Paramount theatre.

HOLBROOK MANUFACTURE NOW DONE IN ONE PLANT

LOS ANGELES—Manufactured formerly in separate units, Holbrook refrigerators, including compressor and cabinet, are now manufactured and assembled at the central plant of the Holbrook Mfg. Co. here.

Three new Holbrook models, No. 50, 4.51-cu. ft. capacity, with 3 in. of insulation; No. 60, 5.5-cu. ft. capacity, with 3½ in. of insulation; and No. 70, 7.07-cu. ft. capacity, with 4 in. of insulation, have just been placed on the Pacific Coast market under a three-year guarantee.

As with the former Holbrook electric refrigerators, sulphur dioxide again is used for the refrigerant. Under the new production method it is possible to dehydrate the box at one time and to charge it at one time.

Among the features of the new Holbrooks is the "synchro-sealed" refrigerating mechanism. In the new boxes also three additional freezing speeds have been provided by a chilling throttle controlled from the defrosting switch panel. In the cabinet construction the shelf area has been extended from 7 to 13 sq. ft. more than in former models.

Doors and the top of the boxes are formed on dies to avoid welding of joints. On the outside finish Porcellos is used, while the interior finish is porcelain fused on non-rust steel-acid proof. The ice melting capacity of the new boxes is 100 lbs. every 24 hours.

CHICAGO ENGINEER PATENTS COIN METERING DEVICE

CHICAGO—H. H. Puff, a local engineer here, has designed a new electric coin metering device which he claims is suitable for use on electric refrigerators. A patent covering the features of the device was granted as No. 1,831,545 on Nov. 10.

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These illustrations, in actual size, show the reason for the economy of STREAMLINE fittings over flared fittings.

You can save approximately 50% of your fitting costs

THIS is a substantial saving when the number of the fittings on one job is multiplied by the number of units on your production schedule. In addition, STREAMLINE tubing costs no more than the conventional copper tube, and there is another substantial economy in labor costs, particularly in the ¼" size.

Tests have shown also that flared joints localize all vibration strains at the base of the flare — the weakest point in the tube.

In a Mueller patented joint, the solder film forms a perfect bond between the tube and the fitting. In contrast to all other methods, the connection between Mueller STREAMLINE hard copper tube and Mueller STREAMLINE fittings is, therefore, the strongest point in an unusually strong installation.

If you are not thoroughly familiar with the advantages of STREAMLINE products in a refrigeration installation, write or wire at our expense.

We also manufacture a complete line of valves and fittings, and can supply your every requirement.

STREAMLINE Coupling
Copper to Outside, I. P. S.
Patent 1,776,502
Patent 1,770,852
Other patents pending.

Mueller Brass Co.
PORT HURON, MICHIGAN
MUELLER BRASS CO. OF CANADA, LIMITED, TORONTO, ONTARIO
Three Generations of Brass Making

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Patent 1,770,852
Patent 1,776,502
Other patents pending.

(135)

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ASHTABULA, OHIO

Review of Latest Patents Issued in

ISSUED DECEMBER 22

1,837,213. REMOVABLE ADJUSTABLE CONTROLLER FOR HUMIDIFIER VALVES. James W. Galloway, Cedar Falls, Iowa, assignor to Automatic Humidifier Co., Cedar Falls, Iowa. Filed April 18, 1930. Serial No. 445,346. 3 Claims. (Cl. 126—113.)

1. In humidifying apparatus, the combination with a furnace casing, of an evaporating pan positioned therein, means for delivering a liquid into said pan, and a thermostatic device for controlling the delivery of the liquid, consisting of elements rigidly held at abutting terminations and having differential coefficients of heat expansion, a supporting member fixed on one element having a bearing seat, and resiliently adjustably controlled valvular means mounted removably in said bearing seat, said valvular means being adapted to variably control delivery means for a liquid into said pan by reason of the differential expansion or contraction of said thermostatic elements.

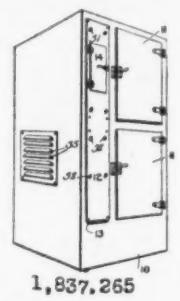
1,837,253. REFRIGERATION. William D. Collins and Clyde Edward Ploeger, Evansville, Ind., assignors to Servel, Inc., New York, N. Y., a Corporation of Delaware. Filed Sept. 27, 1930. Serial No. 484,803. 12 Claims. (Cl. 62—116.)

1. A refrigerator including, in combination, a cabinet having an apparatus compartment, a refrigerating compartment above said apparatus compartment, and a flue at the rear of said compartments; a refrigerating apparatus including a frame, a compressor unit mounted on the lower portion of said frame, condensers mounted on said frame, an evaporator mounted on the upper portion of said frame, said refrigerating apparatus unit being adapted to be secured to said refrigerator cabinet so that the compressor unit is within the apparatus compartment the condensers are within the flue, and the evaporator is within the refrigerating compartment.

1,837,265. REFRIGERATOR CONSTRUCTION. Edward A. Hampson, Chicago, and Donald G. Smellie, Maywood, Ill., assignors to The Hoover Co., a Corporation of Ohio. Filed Aug. 4, 1926. Serial No. 126,975. 7 Claims. (Cl. 62—116.)

1. A refrigerator comprising a box having a vertically elongated compartment along one side thereof, a removable cover for said compartment and a refrigerating unit mounted on said cover and normally positioned in said compartment.

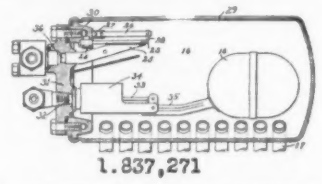
1,837,268. REFRIGERATING APPARATUS. Harry B. Hull, Dayton, Ohio, assignor, by


1,837,265

mesne assignments, to Frigidaire Corp., a Corporation of Delaware. Filed July 30, 1927. Serial No. 209,557. 10 Claims. (Cl. 62—5.)

1. An absorption refrigerating apparatus comprising in combination a generator-absorber, condensing means including a reservoir for liquid refrigerant, and an evaporator connected in an operative circuit, said circuit including a connection between the reservoir and evaporator and a connection between the evaporator and generator-absorber; a device responsive to the pressure in the system for opening and closing the connection between the reservoir and the evaporator and for opening and closing the connection between the evaporator and the generator-absorber.

1,837,271. REFRIGERATING APPARATUS. Jesse G. King, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a Corporation of Delaware. Filed April 30, 1928. Serial No. 273,585. 8 Claims. (Cl. 62—3.)


1,837,271

1. Refrigerating apparatus comprising a system having a low pressure side and a high pressure side, means for circulating refrigerant through said system, said low pressure side including an evaporator of the type having a float actuated valve responsive to the quantity of refrigerant in the low pressure side for controlling the flow of refrigerant from the high pressure side to the evaporator and means providing a passageway opening into said evaporator for the return of the evaporated refrigerant and a valve adapted to move from one side of the passageway to the other in a plane slightly spaced from the opening whereby the amount of evaporated refrigerant flowing into said passageway may be varied.

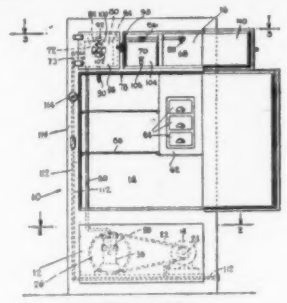
1,837,293. REFRIGERATOR. Joseph W. Sanford, Washington, D. C. Filed Sept. 20, 1929. Serial No. 394,076. 4 Claims. (Cl. 312—176.)

2. In a refrigerator, a pair of spaced tubular rails having longitudinal slots in their confronting faces, supporting rollers mounted in the lower parts of said rails, an article supporting tray having longitudinally extending flanges projecting laterally from its sides through said slots to rest on said rollers, rail supporting means on the walls of said refrigerator, cooperating means on the rails engaging said rail supporting means removably, and stops pivoted on the under sides of said rails for swinging movement into and out of engaging position with the rail supporting means to prevent and permit disengagement of the rails from the rail supporting means.

1,837,294. REFRIGERATING APPARATUS. Edward M. Scheid, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a Corporation of Delaware. Filed Aug. 12, 1929 Serial No. 385,190. 6 Claims. (Cl. 153—71.)

1. A mandrel for making helically corrugated sheet-metal shells, comprising in combination a plurality of complementary members having curved outer portions forming a cylinder, said members having pitched registering grooves forming a helical groove extending substantially throughout the length of the cylinder but terminating between its ends.

1,837,296. HOUSEHOLD OZONIZER. Arthur R. Speer, Bronxville, N. Y. Filed Oct. 26, 1927. Serial No. 228,797. 6 Claims. (Cl. 62—116.)

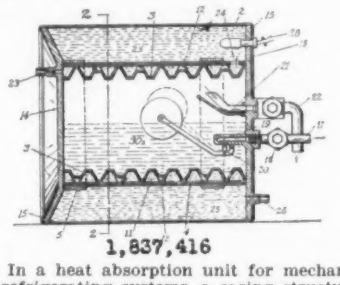

1,837,296

3. In combination with a household refrigerator having a refrigerating unit including a motor, an air pump operatively connected to said motor and an ozone making apparatus mounted within the refrigerator and connected to said air pump for receiving an air supply therefrom.

1,837,300. REFRIGERATING APPARATUS. Francis E. Stevenson, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a Corporation of Delaware. Filed Feb. 28, 1930. Serial No. 432,096. 7 Claims. (Cl. 211—153.)

4. In a refrigerator, a shelf having a plurality of substantially flat supporting surfaces arranged in different horizontal planes, and a second shelf having one end supported by one of said flat surfaces of said named shelf.

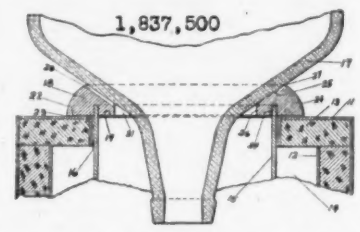
1,837,416. HEAT ABSORPTION UNIT. David H. Ebinger, Columbus, Ohio, assignor to The D. A. Ebinger Sanitary Mfg. Co., Columbus, Ohio, a Corporation of Ohio. Filed Aug. 26, 1929. Serial No. 388,419. 4 Claims. (Cl. 62—141.)


1,837,416

1. In a heat absorption unit for mechanical refrigerating systems, a casing structure comprising an inner metallic shell of thin sheet metal construction having corrugated walls, said shell being adapted to contain a vaporizable liquid refrigerant, expansible means surrounding said shell and forming in conjunction with the corrugated walls thereof a circuitous water circulating passage, an outer metallic wall spaced from said expansible means and forming a secondary liquid receiving chamber communicating with the discharge end of said passage, and end members for closing the refrigerant chamber of said shell and the ends of said secondary cooling chamber, said cooling chamber being provided with a water outlet.

1,837,500. SEALING RING. Caleb A. Sundeen, Gardner, Mass., assignor to Iceberg Mfg. Co., a Corporation of Massachusetts. Filed Nov. 3, 1928. Serial No. 317,016. 14 Claims. (Cl. 62—143.)

1. A sealing ring comprising a bottom wall


1,837,500

having a lip at its outer edge, an outer wall and a sloping top wall, the point of juncture between the outer and top walls occurring between the outer edge and the vertical center line of the body of the ring.

1,837,613. FOUNDATION FOR REFRIGERATOR CAR TANKS. George Earle Gilbreth, Chicago, Ill., assignor, by mesne assignments, to Industrial Patents Corp., Chicago, Ill., a Corporation of Delaware. Filed Jan. 27, 1931. Serial No. 511,481. 4 Claims. (Cl. 62—169.1.)

1. In a foundation for refrigerator car ice and brine tanks, spacer blocks provided with drain slots to permit the downward escape of water collecting on the sides of the tanks.

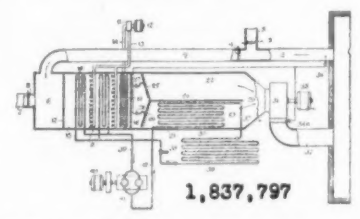
1,837,767. REFRIGERATION. Thore Martin Elfving, Stockholm, Sweden, assignor to Electrolux Servel Corp., New York, a Corporation of Delaware. Filed Sept. 6, 1928, Serial No. 304,188, and in Germany, April 24, 1928. 15 Claims. (Cl. 62—95.)

5. A refrigerator comprising a food storage compartment, an evaporator in said compartment, said evaporator comprising a single shell having an attachment surface of uniform contour, means to produce a temperature in said shell below the freezing point of water, an enclosure forming member secured around one part of said shell, said member having a sufficiently small outer surface so that a temperature below the freezing point of water will be maintained therein and an air cooling member comprising a series of thin elements secured to another part of said shell having sufficient surface for contact with the air in said food storage compartment so that the rate of heat transfer from the air to the elements will be fast enough to substantially prevent the formation of frost on the elements, said enclosure member and said air cooling member being interchangeably mountable on said shell.

1,837,786. REFRIGERATOR CAR INSULATION. Alonzo C. Mather, Chicago, Ill. Filed Jan. 14, 1931. Serial No. 508,689. 3 Claims. (Cl. 105—423.)

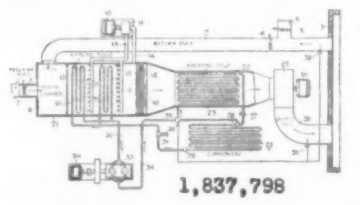
1. In a refrigerator car, hollow vertical walls filled with insulating material and means for storing a supply of insulating material above said walls in such manner that it will gravitate in the hollow of the walls.

1,837,797. METHOD AND APPARATUS FOR CONDITIONING AIR. Thomas Shipley, York, Pa., assignor to York Ice Machinery Corp., York, Pa., a Corporation of Delaware. Filed July 16, 1928. Serial No. 293,072. 19 Claims. (Cl. 62—176.)


1,837,797

1. The method of conditioning air in an enclosed space, which consists in withdrawing air from such space; cooling said air by a reversed heat cycle to reduce its absolute moisture; partially reheating said air by heat rejected by the reversed heat cycle; and returning said air to the enclosed space.

1,837,798. APPARATUS FOR CONDITIONING AIR. Thomas Shipley, York, Pa., assignor to York Ice Machinery Corp., York, Pa., a Corporation of Delaware. Filed Sept. 19, 1928. Serial No. 307,010. 9 Claims. (Cl. 62—129.)


1,837,798

1. The combination of a room; a ventilating duct leading from and back to said room; means for inducing a circulation through said duct; a dehumidifier unit of the refrigerating type including an evaporating cooling coil and a heat rejecting condenser, said coil and a portion only of the condenser being located in said duct in the order stated relatively to the direction of circulatory flow; and means for directing hot gaseous refrigerant at varying rates to that portion of the condenser with-

(*Continued on Page 7, Column 1*)

Everlastingly - - -

- - one solid, seamless, copper tube

not a crack, a flaw, or weak spot. Work it any way—swedge, flare, bend—it is perfect and stays that way. For refrigerants, water, air, oil—the cheapest—and best.

Dehydrated and Sealed Coils

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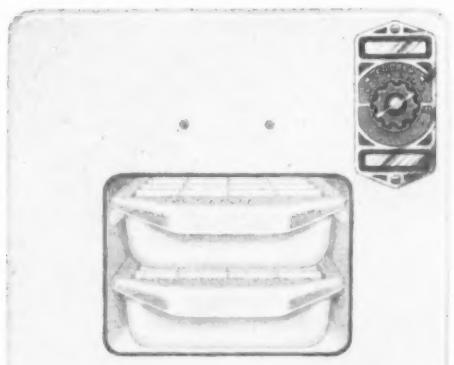

PENN Type J Unit Control

Penn Type J Unit Control now is available in two new simplified and convenient mountings—horizontal and vertical. The vertical (illustrated) permits the control to be mounted on one side of the apron, or any other place most desirable. Both mountings are the same except for the design of the beautiful chromium plated dial plate. The switch is readily installed by inserting through an opening in the panel and securing in position by two screws. Write at once for complete information and prices.

With offices in all principal cities we urge you to bring your refrigeration control problems to our engineering staff. Consultations without obligation.

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or
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Cleveland, O.
Metallurgical Advice Gratis

Field of Mechanical Refrigeration

(Continued from Page 6, Column 5)

in the duct, while the refrigerating dehumidifier continues in normal operation.

1,837,871. REFRIGERATING PLANT. Erich Kindermann, Berlin, Reinickendorf-West, Germany, assignor to Deutsche Gasglublicht-auer Gesellschaft mit beschrankter Haftung, Berlin, Germany, a Corporation of Germany. Filed June 17, 1929, Serial No. 371,584, and in Germany June 18, 1928. 1 Claim. (Cl. 62—118.)

A periodically operating refrigerating plant of the obsorption type having a generator absorber, an evaporator, a condenser interposed between said generator absorber and said evaporator, a cooling pipe in said generator absorber, a tank surrounding said condenser, connections between said tank and said cooling pipe forming a closed circulation path, said tank and circulation path containing a quantity of cooling material for cooling the generator absorber during the absorption period, a valve in the return circuit from the generator absorber to said tank, said valve normally remaining in closed position but being positioned so as to open when the cooling material in the cooling pipe in said generator reaches its boiling point, whereby said cooling material in the cooling pipe in said generator absorber upon reaching its boiling point during the heating period is pressed back into the tank through said valve.

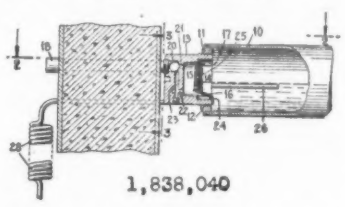
1,837,892. REFRIGERATING SYSTEM AND REFRIGERATOR. Georges Beaumont, Paris, France. Filed Aug. 21, 1930, Serial No. 476,878, and in France, Sept. 28, 1929. 2 Claims. (Cl. 62—120.)

1. In a refrigerating assembly, a pair of closed elongated containers and a conduit extending from adjacent one end of one of said containers to a point adjacent the opposite end of the other of said containers, said conduit communicating with the upper portion of each of the containers when the latter are moved into horizontal position.

1,837,907. REFRIGERATOR BOX. Daniel J. Hurley, Detroit, Mich. Filed Dec. 26, 1928. Serial No. 328,459. 2 Claims. (Cl. 220—9.)

1. In a box of the character described, the combination of inner and outer walls spaced from one another, the outer walls being inwardly corrugated and the inner walls being outwardly corrugated; the corrugations in one wall being substantially in alignment with the corrugations in the wall spaced from it, and a plurality of substantially circular rods extending between each pair of spaced walls transversely of their corrugations, each rod on one side being secured at intervals to the outer extremities of the corrugations on one wall and its opposite side being secured at intervals to the outer extremities of the corrugations of the wall spaced from it, so that said rods hold each pair of spaced walls in their correct spaced relationship.

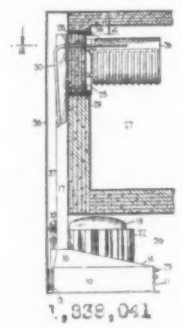
1,838,040. REFRIGERATION. Clyde E. Ploeger, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a Corporation of Delaware. Filed Oct. 7, 1930. Serial No. 486,933. 11 Claims. (Cl. 62—126.)



1,838,040

11. The combination with an evaporator and a suction line, of an ejector housing in the suction line outside of said evaporator, and capillary means for transferring lubricant from the evaporator into said housing.

1,838,041. REFRIGERATION. Clyde E. Ploeger and William D. Collins, Evansville, Ind., assignors to Servel, Inc., New York, N. Y., a Corporation of Delaware. Filed Oct. 27, 1930. Serial No. 491,427. 11 Claims. (Cl. 62—116.)



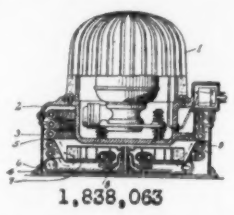
1,838,041

4. A refrigerator including an apparatus compartment, a flue extending therefrom, a refrigerating compartment above said apparatus compartment, a frame, a refrigerating unit mounted on said frame and including a compressor on the lower portion of the frame and an evaporator on the upper portion of the frame, said frame and refrigerating unit adapted to be secured in such position that the evaporator is within the refrigerating chamber and the frame in the flue.

1,838,043. APPARATUS AND METHOD FOR HEAT EXCHANGERS. Thomas K. Sherwood, Worcester, Mass. Filed Aug. 22, 1930. Serial No. 477,082. 4 Claims. (Cl. 257—241.)

1. The method of heat transferring which consists in flowing the liquid to be heated or cooled through a tube, applying heat or cold to the tube, rotating the tube at a high speed and preventing the rotation of the liquid in the tube as it passes through it.

1,838,063. ELECTRICALLY OPERATED REFRIGERATING MECHANISM. Walter W. Williams, Bloomington, Ill., assignor to Williams Oil-O-Matic Heating Corp., Bloomington, Ill., a Corporation of Illinois. Filed Jan. 2, 1930. Serial No. 417,905. 6 Claims. (Cl. 62—115.)



1,838,063

5. In an electrically operated refrigeration device, a unit compressor, and condenser including a compressor casing, and a condenser mounted thereunder comprising a plurality of coils connected to the discharge side of the compressor, and means surrounded by the condenser for withdrawing atmospheric air through the lower coils thereof and expelling such air through the upper coils.

ISSUED DECEMBER 29

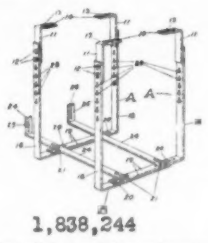
1,838,098. REFRIGERATING APPARATUS. William C. Holbrook, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a Corporation of Delaware. Filed July 31, 1929. Serial No. 382,461. 3 Claims. (Cl. 220—9.)

1. A frame for refrigerating cabinets comprising a plurality of transversely curved angle iron members with their longitudinal directions substantially at right angles to one another, said angle iron members being bifurcated, the bifurcated portions of said members being bent towards the bifurcated portions of other members and attached thereto.

1,838,165. REFRIGERATING APPARATUS. Carl W. Vollmann, Montreal, Quebec, Can. Filed Nov. 29, 1926, Serial No. 151,380, and in Canada Nov. 20, 1926. 2 Claims. (Cl. 62—8.)

1. A refrigerating apparatus including an evaporator, a chamber provided with a top wall having a port formed therein, one end of said port being connected to a source of liquid refrigerant and the other end connected to the upper portion of the evaporator to deliver the refrigerant thereto, a conduit connecting the lower portion of the evaporator to the lower portion of the chamber so that the refrigerant will rise in the chamber to the same level as that in the evaporator, a valve controlling the port in the top wall of the chamber to reguiate the delivery of refrigerant to the evaporator, a float in said chamber functioning to open and close said valve as the level of the refrigerant fluctuates and gas offtake conduits connected to the upper portions of the chamber and evaporator.

1,838,244. ADJUSTABLE REFRIGERATOR-UNIT HANGER. Robert S. Ahrens, St. Paul, Minn., assignor to Seeger Refrigerator Co., a Corporation of Minnesota. Filed Aug. 12, 1927. Serial No. 212,509. 10 Claims. (Cl. 62—169.1.)



1,838,244

1. A collapsible refrigerator-unit hanger comprising right angular shaped ceiling brackets, lugs carried by said brackets and bottom bracket arms having inverted keyhole shaped slots therein adjustably connectible to said lugs.

1,838,255. AIR CONDITIONING APPARATUS. Daniel Handelan, Minneapolis, Minn. Filed Feb. 11, 1926. Serial No. 87,549. 9 Claims. (Cl. 183—23.)

1. An air conditioning apparatus comprising an elongated case, a heater situated at one end of said case having a plurality of closely spaced conductors, a sprayer situated within said case adjacent said heater adapted to direct a spray of water against the conductors of said heater, and a fan adjacent said heater on the other side thereof adapted to force air through said heater in opposition to the direction of travel of the spray from said sprayer, said fan having a mounting, said fan and mounting completely covering the conductors of said heater and preventing the passage of water through said heater.

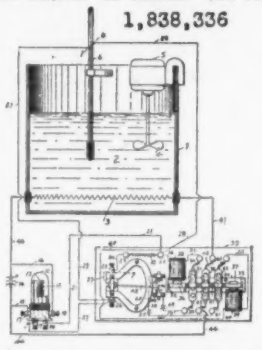
1,838,259. PUMP FOR REFRIGERATING APPARATUS. Harry B. Hull, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a Corporation of Delaware. Filed June 30, 1928. Serial No. 289,546. 9 Claims. (Cl. 230—206.)

1. A compressor comprising in combination a crankcase, a cylinder, a cylinder head, a fan, a cooling device in the path of air moved by the fan, and means for circulating oil from the crankcase in heat absorbing relation with the cylinder head and through the cooling device.

1,838,260. CENTRAL COOLING PLANT. Emil Jacob, Eilenburg, Germany, assignor to Adolf Kern, Frankfort-on-the-Main, Germany. Filed Nov. 19, 1929, Serial No. 408,305, and in Germany Oct. 3, 1929. 1 Claim. (Cl. 257—8.)

A central cooling plant including in combination with a pipe system and radiators for heating in winter and a heating boiler serving as central heating element for said pipe system, said plant comprising a refrigerator adapted to be connected up to said pipe system, steam traps adapted to prevent steam from flowing through said pipe system, a by-pass bridging each of said steam traps, a shutting off valve in each of said by-passes and means for circulating cooling liquid through said pipe system and said radiators.

1,838,336. AUTOMATIC TEMPERATURE CONTROL DEVICE. Fritz Frederick Uehling, Passaic, N. J. Filed Jan. 13, 1930. Serial No. 420,620. 15 Claims. (Cl. 175—375.)



1,838,336

12. In a device of the class described, the combination with a tiltable frame, of an electro-magnet for tilting the frame in one direction, a second electro-magnet for tilting the frame in the opposite direction, a mercury switch fastened to the tiltable frame said switch being open when tilted by the first magnet and closed when tilted by the second magnet, a second mercury switch fastened to the tiltable frame, a third mercury switch fastened to the tiltable frame, both of said second and third switches being closed when tilted by the first magnet and open when tilted by the second magnet, a galvanometer having an indicating needle, an electric contact piece with which the needle makes contact when deflected in one direction, a second electric contact piece with which the needle makes contact when deflected in the opposite direction, an electrical resistance, an electric circuit which

(Continued on Page 8, Column 1)

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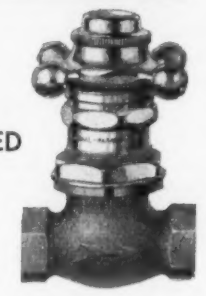

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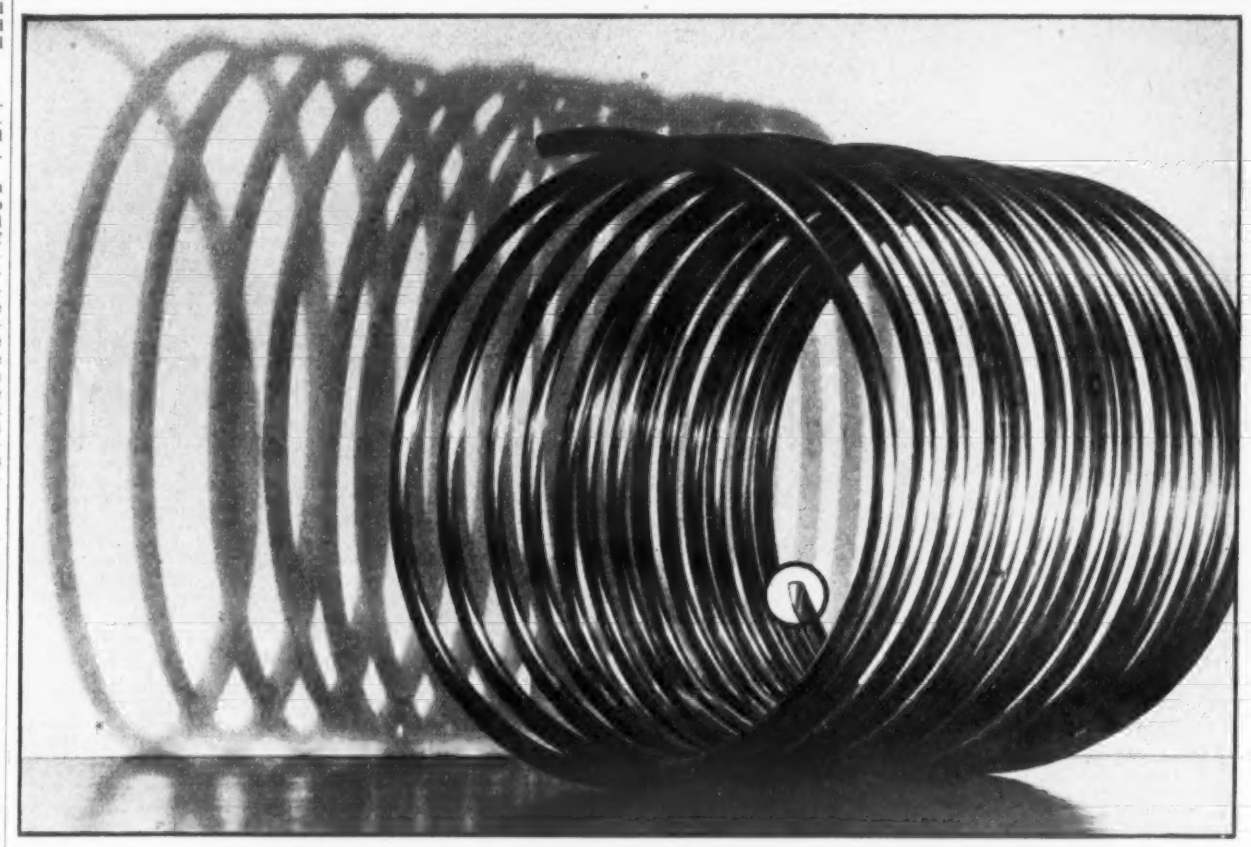

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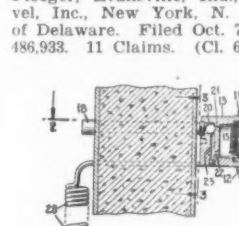

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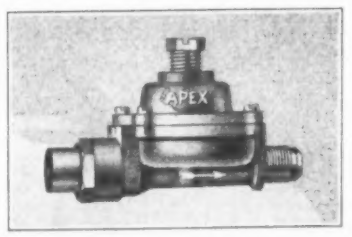

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